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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

GLIMPSES OF SEVENTEENTH CENTURY MEDICINE AND MEDICAL MEN.

BY E. T. BLACKWELL, M. D.

Of Paterson, N. J.

II.

(Continued from page 258.)

Chapter xv. treats "*Of the vomiting of what is contain'd in the Guts, the Disease Cholera and Ileus.*" Of the last he says: "*The Upper Part of the Guts, thrust in the Under Part, will never (at least in my judgment) return; but the Under being thrust into the Upper, will not be so difficultly repell'd by Golden or Lead Bullets, swallow'd down with Oil of sweet Almonds, or of Olives, or one or two ounces of Quicksilver taken.*"

Speaking of strangulated hernia and the desperate condition attending it, he says: "All these Evils are often increas'd or bred by *Fomentations* evilly and too hot applied; as also by a preposterous and strong *rubbing* of the swell'd part. Lastly, by violence us'd to the swell'd Guts to repel them." "As often as Irritation of the Guts depends on the vitious *effervescence* of sharp *Humors* flowing together to the inversion of their contracted Motion, so often these over-sharp *Humors* are to be corrected and temper'd, by Medicins that temper * * * to which *Opiats* are always to be added to assuage the vitious *effervescency* and stupefie the sense of the Guts." "I judge a Gangrene of the Guts incurable."

Chapter xvii.: "*Of the Motion of Chyle through the Lacteal Veins deprav'd, and the Dropsie Ascites often following it.*" "The over-Viscous Chyle, or

Phlegm of the Guts being thus (by a sudden chilling) Coagulated in the Lacteal Veins; and an Obstruction made in more or fewer of their Branches, is *stopt*, and settles presently in the same whatsoever is driven into them out of the Guts, either of *Liquor* rising from the continual conflux of Cholera, the Juice of the *Pancreas*, and the Phlegm of Spittle, or of *Chyle*, or *Drink*, only drank plentifully; and it does by degrees more and more *distend* the same so far, that at length they *burst*, and consequently either first this manifold *Moisture* receiv'd into them, and intercepted in its Motion, is pour'd out between the *Membranes* of the *Mesenteric*, or presently after into the *Cavity* of the *Belly*. I take this often to be the Breeding of the *Dropsie Ascites*. * * The waters collected will be remov'd out of that place, both by strong *Hydragogues*, and also *Sudorifics*, and a *Paracentesis* or boring the *Belly* * * not that common one so very dangerous, but a new one that is so very safe, by a *Silver hollow Needle*, gently thrust into the *Belly*."

The author advises an early operation, "*lest* whilst it is too long delay'd, the Humor collected in the *Belly* get an hurtful *Acrimonia*, and by degrees *corrode* and *corrupt* the *Membranes*, and hence the *Substance* of all the parts contain'd, and so make the Disease incurable."

Chapter xix. "*Of the Continual and Vital Effervescency of Blood in the Right Ventricle of the Heart hurt.*" "*By the Conflux of the Volatil Oily Salt ruling in the Gall, and constituting the chief part of the Sourish Sweet Spirit; of these, I say, being somewhat contrary, there is rais'd a gentle, and to Nature friendly Fight, describ'd by Us with the Name of an Effervescency, in and by which the Fiery Parts lying hid and shut up in both are*

loos'd from their Fetters, and being free'd, insinuate themselves into the *Oily* and *Fat* obvious Parts, both of the *Blood* and also of *Chyle*, as the proper Subject of their Action, *rarefying* the same; and moreover do so *change* and *alter* the other parts more or less mixt with them, that *Life* may be continu'd and *Blood* mov'd any whither; and the necessary *Reparation* of all the containing and contain'd Parts, perpetually more or less Consum'd, may be *perfected* and *absolv'd*."

Among many things that depress this action, he notes: "The same *Vital Effervescency* is Abolish'd By the *over-potent Vital Fire* rais'd in the Heart, *rarefying* the *Blood* more than enough, and to an *Height*, whence by the defect either of a Space large enough, in which it may be receiv'd, or sufficient *Cooling*, whereby the hot *Blood* might be tempered, our *Vital Fire* is often Suffocated in the most *Burning Fevers* by its own fault." * * * By the help of *Medicins*, our *Vital Fire* may be said to be kindled and restor'd, when in the aforenam'd Diseases, one or two Drops of some very *Aromatic Oil*, with a little *Aromatic Spirit* of *Wine*, or any other convenient *Liquor*, once or often pour'd into the Mouth of the Sick, who is in the Agonie of Death, pierce to the *Blood* infected, and worst affected with the aforesaid Viscously-Acid *Phlegm*, may raise or stir up suddenly, or by degrees, the *Vital Fire* itself, languishing or extinct, by correct or amending *Phlegm*, and also strengthening and relieving *Choler*." Again: "These *Aromatic Oils*, if they be united artificially, with the *Spirit* of *Wine*, are call'd by some *Balsams* or *Elixirs* of *Life*, whereof one or two drops being given in a convenient *Liquor*, especially *Wine*, do restore the *Vital Strength*, Languishing for the defect of *Choler*, and seem to snatch those out of the Jaws of Death that otherwise were dying, do sometimes raise again those that were esteem'd for dead."

Chapter xxiv. "Of the Nourishment of the Lungs Deprav'd." "The Lungs Pine more or less, sometimes in both sides, sometimes in either, and in this or that *Lobe*, by the fault either *Itself* or the *Blood* or *Matter*. By the fault of the *Blood*, when it is *Purulent*, especially in a *Pleurisie*, tending to an *Apostheme*, and communicating its *Matter* to the Lungs, either immediately, or by means of the *Blood*; whence *Leanness*, not only of the Lungs, but of the *Universal Body* is wont to follow. *Leanness* may hap by fault of the Lungs, when by an *External* or *Internal Cause*, they become unfit to assimilate to themselves the *Blood* duly flowing in; which happens *Internally* by an *Ulcer*, *Externally* by a *Suppuration*; in both places by *Matter* corrupting, not only the blood of what sort soever carri'd to

them, but also the very *Substance* of them, so that they cannot longer be nourisht by any *Blood*."

* * "The nourishment of the Lungs is Deprav'd by either or both kinds of *Blood vitious*, at least having *Vituous Humors* mixt with it. * * To these Causes, depending sometimes on *Choler*, sometimes on the *Juice* of the *Pancreas*, sometimes on *Spittle*, sometimes on *Liquor* rising from this *Ternarie*, sometimes on *Chyle*, sometimes on *Lympha* any way vitiated, sometimes on *Serous Liquor* not separated in the *Kidneys*, but remaining in the *Blood* contrary to Nature; and if there be more things which may and are wont to vitiate the *Blood*, is ascrib'd the rising of *Tubercles* oft observ'd here and there in the Lungs, and the change of their soft and spongie Substance into a *Fleshy*, *Tumorous*, and harder and more solid many ways than is wont, or otherwise declining from their Natural Consistency."

Therapeutically, he adds: "I doubt how little Knobs arising in the Lungs, and not easily known, unless by conjecture very uncertain, ought or may be Cur'd, unless perhaps the more fixt *Antimonial Medicins* can do it, being indued with an universal force of purifying Man's Body from all Harm and Impurity."

Chapter xli. "Of the Generation and Separation of the Animal Spirits in the Brain, and Cerebellum Deprav'd." "A Volatil anion to be call'd an Animal Spirit is Separated from the rest of the Mass of *Blood* in the Brain and Cerebellum, which although it be not perhaps seen and discerned with the Eyes of the body, yet is it demonstrated to the Mind by solid Reasoning, and that manifold."

* * "The Animal Spirits being sever'd from the *Blood* in the Brain and Cerebellum are every whither carri'd by their continu'd Marrow as it were in a Pipe in the nerves, to Exercise the *External Senses* and *Animal Motion*." Again: "The Marrow that it slipping down by a closing, renders its Pipes unfit to let the Animal Spirits pass through, so that sometimes one, sometimes more parts, do more or less lose Motion and Sense."

"If No Animal Spirits be separated, it seems not likely that a man can live long, being destitute of motion, especially of the Heart and Breast and Midriff."

Chapter lv. "Of the Separation of Urin in the Kidneys Deprav'd." "As the best part of Food, and that which is useful to the Body, is separated from the Food taken in, and fermented in the Ventricle, being fluid and of a milky colour, and carri'd under the name of *Chyle*, through the Lacteal Veins toward the Heart, whilst the unuseful and excrementitious parts go away by Stool, keeping a thicker consistency; so again the serous

superfluous part is separated in the Kidneys out of the Chyle chang'd into Blood; which, whilst the principal part of Blood flows back to its mass, it distills through their capillar fleshy parts into its Funnel, and is sent hence through the ureters to the Urinary Bladder, so nam'd from the mentioned Serous part then constituting Urin."

"This Urin because it is observ'd Salt even in those (in whom the serous part of their Blood is found insipid), and may suspect, and not without cause, that the matter of Urin undergoes some Singular Change in the Kidneys, while it is strein'd through the mention'd fleshy Parts." * * "These fleshy parts may be Obstructed by much and glutinous Phlegm, any ways loosened in the small Gut and confused with the Blood being afterwards again coagulated in the Kidneys." * * "Urin consists of two parts, both Watry and Salt * * whence after that much and especially piercing, and therefore Diuretical Drink is taken in, the Urin that is wont to be first voided, is observed Watry and insipid, not only in Colour but also in Tast: as that which comes away after the Fermentation of food in the Stomach absolv'd, is not only a more or less yellow Colour, but moreover Salt." * * "The things Contain'd in Urin are several, where of some swim in its Superficies, some fall to the Bottom, some are carri'd in its Liquor * * lastly, some adhere to the sides and bottom of the Vessel; none whereof is found in Urin according to Nature." * * "Gravel settling at the bottom of the Urin is of all kinds; both that may be crum'd and solid; both red and yellow, or somewhat ashie, and so coming nearer to the nature of Stones." * * "A greater quantity of the things Contain'd signifies much unuseful Matter is in the Blood, and so to be separated." * * "These Contain'd things, how much the whiter they be, are liked so much the more, and they are the signs of a laudable Concoction, that is, desir'd Alteration or Correction, and hence Separation of the hurtful Humors in the Blood; how much the more they decline from whiteness, such as are red, and chiefly black, so much the more are they dislik'd, and they are signs of a deficient Concoction, and so of greater danger."

The final chapter, lviii., "Of the Retention of Urin in the Bladder, and its Excretion through the Urethra Deprav'd," shows the usual thoroughness of the author; and is not far from accord with modern practice. A few examples will suffice. "Stones stopping the Orifice of the Bladder are either to be repeld with a squirt, if more great; or are to be Expeld forth by Drink, and that Diuretical being taken freely." * * "When the Channel of the Passage call'd Urethra, is grown together, it must

be bored, a fit Instrument being mildly thrust in; and the same, if hollow, is to be left there so long cover'd with a Consolidating Ointment or Plaster, till the fear of a new closing be remov'd." "An Extreme Distension of the Bladder by Urin too long held in, may be Cur'd by thrusting in a Wax Candle being first oil'd, through the Urethra to its Cavity, and anon by drawing out the same." * * *

A few extracts selected here and there, and I have done. The course of "Choler" so much spoken of, seems to have been imperfectly understood, and the author's views began to be questioned in the public disputations held in the "Physicians' Auditory," of which Sylvius was president. This was his belief: "I judg'd the same Choler was driven forward out of its Bag through the Cystic Passage into the Common Passage, hence partly through that of the Guts to the small gut, partly through that of the Liver to the branches of the Port and Hollow Vein, thence together with the ascending Blood to the Heart for notable uses." He complains that many of his pupils, regardless of their oath, made known their dissent to his enemies, rather than to himself; though he speaks kindly of Marcellus Malpighius, and quotes his belief as follows: "The whole Liver consists of manifold Lobes, which are joind to certain Glandulous Knobs, by which the extreme parts of all Vessels bringing in and carrying out, that is to say of the Port and Hollow Veins, Hepatic Arteries, Nerves, and Hepatic Passage of Choler, and of the Roots springing from the Bag of Gall are ended."

On gall-stones this: "Among medicines that dissolve Stones of Choler, I doubt not to refer the roots and herbs of Grass, either distill'd, or, which I prefer, boild or bruisd, and the Juice Extract exprest out of it, Sugar or Honey being added to make it pleasant."

"As often as the Jaundice is bred by the Poison of a Viper, a Treacle is here mentioned, not without cause, containing the Troches of Vipers in it, and several other things prepar'd of Vipers, abounding with a Volatil Salt."

Under "The Generation and Separation of the Animal Spirits, etc.," occurs this passage: "Seeing that Volatil Salts are drawn from all the parts of a Man by a light Art, let it seem strange to none, if I so often commend and praise Volatil mild Salts among the medicines that Alter and Amend the deprav'd Humors of Man."

Under "The Expiration of Air Deprav'd," we find this: "That we may begin at the Hicket as often as hurtful and sharp Food or Medicines, or rather Poison are in the stomach, unless they can be tempered and corrected by those that Alter they

are to be *Expell'd*, either by a *Vomit* upward the shorter way, or by a *Purge* downward, the longer way." * * "Among *Vomits*, I here prefer *Antimonial*s before all others, both because they do most happily empty any Humors promiscuously, and because they are most friendly to Man's Nature, by degrees bringing all the Humors in Man, after a peculiar manner, to a most laudable State."

Another remedy is extolled in this fashion: "Not long since I experienc'd the stupendious power of *Balsam of Sulphur Ambred* (B. S. Succinat.) in a *Goutish Pain* very corroding." * * * "Many also approve their own *Spittle* rub'd in in the morning to defend the parts against new assaults."

The following is suggestive of the method of examining patients in the author's time: "*The Serous part of Blood* is naturally *Inspid*, yet in *Belgia* it is found *somewhat Salt* in the half perhaps of Men, at least as much as I could conceive by tasting the Blood let out of Healthy or Sick People."

Apparently the same country and period furnish a traumatism not often encountered among us: "It sometimes happens that there is such a vehement Palpitation of the Heart, and such a smiting of the Ribs, that they are broken by it or driven forth in younger and more tender People, and remain sticking out."

The extracts above given are among the most striking utterances of the author; but there are practical things besides of considerable value. He is a bright light, gleaming upon a horizon already studded with stars which have broken through mediæval darkness. To present his characteristics so fully to the readers of the MEDICAL AND SURGICAL REPORTER has involved more labor than one who quietly enjoys it will be likely to guess.

SHALL I LOCATE? AND WHERE?

BY GEORGE B. H. SWAYZE, M. D.,
Of Philadelphia, Pa.

Where should I locate? is the significant, often the critical, question that confronts the young graduate in medicine, and puzzles even many a perplexed practitioner whose beginning has been harassed by disappointment.

Amid a halo of rosy anticipations and commencement word-painting, hundreds of young men, by squads and by companies, annually receive their college commissions and seals of office to set out on what to most of them so speedily proves a prosy descent to anxious scrambling for the necessities of a livelihood.

Enthusiasm is the paddle that propels and hope is the anchor that grounds the student and beginner in medicine; if employed with necessary discretion, these prospective influences prove invaluable agencies of progress and success. But in close kinship with these expedient qualities of the naturally vicacious disciple of Hippocrates there is usually also associated the aura of pardonable self-conceit, that exhilarates both motive and effort like the resiliency of a self-sufficient atmosphere. Each young man is therefore disposed to fancy and to think that *his career* will be buoyed by the exceptional good fortune that attends the favored few. In the freshness of his plans and foretaste, imagination spreads her captivating wings and presents the fairies of many a deceptive egotism that whispers sweet prophesies of the superiority of *his* acquirements for professional preferment—of the exceptional skill by which *he* will be enabled to easily outstrip competitors in practice and opportunely win the golden fleece of an abundant prosperity. Such is the untutored dream. Alas! how different the awakening of disciplined experience!

In no sense is this paper intended as a literary thesis; the writer is not penning "bosh;" he is not aiming disparagement against any of our old and reliable, honored medical colleges; he is not throwing discouragements in the way of any intelligent young man who *should* become a physician; his sole object is to serve young men who are students and beginners in medicine, by conscientiously presenting some inside glimpse of the sphere of medical practice to as many who *ought not* to become practitioners of medicine, as can be reached by his words through the legitimate medium of a medical journal, as well as to give such useful hints to those who are beating about the bush of location for practice, as the writer's three-fold experience and observation afford. Neither do I write to give expression to any private grievance, as the goodly success that has always attended my work must fairly forbid. Then why have I said "three-fold experience?" I might have said four-fold: First, in the agricultural section of central Pennsylvania. Second, in service of the army during the war. Third, in the Schuylkill county coal region. Fourth, in the "City of Brotherly Love?" And I may premise to all querists that the writer is, therefore, in position to *know something* of the experience of establishing a practice respectively in the country, in the town, and in a large city. The indications of a finger-board at cross-roads may prevent many a traveler from journeying astray. Young men,

and occasionally men not so young, sometimes reach a cross-road of contingency, of purpose or choice; and if one who has studied the topography of motive and achievement may be permitted to tack up some useful indicator on the guide-post of individual election and life-work, it may save the sober inquirer from many a serious disappointment—it may keep him free-handed to engage in other lines of business that both promise and yield more certain and larger advantages to pocket, to body and mind, to family and descendants, than the practice of medicine secures.

Our medical colleges are, as usual of late years, full of eager aspirants for *diploma-tic* honors. A few months since more than a thousand of the ill-starred of these students were turned out into the highways and byways, and upon the public commons to find patients and bread. Where are they all to go? What can they all find to do when they get there? It will be a long time before each can be enabled to answer for himself.

Thousands of young men launch their lives and prospects in the medical profession, who would do otherwise if they had any adequate conception of what awaits them there. Thousands of young men have been induced to devote themselves to the healing art, to whom it would have been a life-long kindness instead, if for them some judicious practitioner of experience had timely lifted the spangled veil of sentimentalism, which superficially disguises the obstacles, anxieties, privations, hardships, sacrifices, and disappointments of the physician's usual sphere. Young men are too often misled in the choice of medicine for a business by inconsiderate practitioners, who desire to avail themselves of the temporary convenience of an office assistant, as well as of the fees of the student for office preceptorship. Over-persuaded victims of the enticing bait of inflated prospectuses, especially of new "medical colleges," that have of recent years been springing up like mushrooms into announcement attitude in numerous directions, do not usually know that these pretentious institutions are called into transient existence, neither in consequence of the progressive prosperity of the profession nor the augmenting educational needs of the country. Many of them are mills whose projectors have axes to grind, and who, through the means of personal solicitation and underbidding tolls, propose to coax in enough stray grist to turn the stones and keep up the noise.

Comparatively few of the impressible class of matriculants, for whom the accommodating net is set, are supposed to be aware that many of the new medical school enterprises are run on competi-

tive principles for business profits, and not unlikely by self-appointed "faculties," with an imposing array of "adjuncts" who perform prodigious duty on advertising paper only, but make convenient stool-pigeons withal to help draw in such candidates for the doctorate as combined ingeniousness can secure. Medical students, or those proposing to become such, are not opportunely advised by their preceptors and professors that the larger the number of applicants for diplomas to enter practice from commencement to commencement throughout the country, the more certainly must their obstacles to professional success be augmented. Many learn too late that it is not always wisdom to follow the crowd; that it is more provident to plant where there are not more gleaners than there is wheat.

It is often said that "Competition is the life of trade;" a fallacious maxim as related to medical practice. The physician is a conservator of health, and health is the happy condition that waives the mediatorial functions of a doctor. Ideally, the physician's relations to the world are those of benefaction to humanity. Not unfrequently the weary practitioner finds too many in a community disposed to practically so consider his office, by their evident belief that their duty to the doctor ends when they have sent for him! It is a high calling to be a physician; but more than the honor of the calling is required to support him and his family. Like most enterprising men can do in other lines of avocation, the physician cannot *make business*. While other men may go energetically ahead and drive their enterprises, the physician must nervously wait for sickness to come. He cannot go out and invent epidemics nor develop systems of contagion; and if he could, he would all the sooner drape his home in mourning and sacrifice his own life in the bargain. He cannot enlarge his facilities and create a demand for his productions; he must hold his yearning soul in patience and wait to be sent for. The less sickness there is, the less there is for him to do. If but a dozen cases of illness occur in his neighborhood in a month, it would require the income from them all to make him a moderate practice: but if this dozen cases be divided between a dozen neighborhood physicians, the income to each is reduced to a modicum, while if a favored one gets the paying cases, and the other eleven serve the remainder without pay, it soon becomes to them a problem of *move*, or starvation, unless they are blessed with a substantial reserve fund. We thus see how competition may be the death as well as the life of business.

Again, as a rule, physicians must do their own professional work, whether much or little. They cannot employ the toil of others, nor share the profits of such employment. In almost no other line of business does a man find his hands so irrevocably tied to the limits of his individual effort. Doctoring by proxy is usually resented by dismissal. If a rush occurs, the hurried practitioner cannot be at two or more places at the same time; and in ten days he is already overworked. If he has but little to do, the exactions of that little forbid him to risk engaging himself in other directions. At best, the scope of his work, whether profitable or unprofitable, must be gauged to the capacity of his own strength and endurance.

"It will be a long time, gentlemen, before you all get practice and get yourselves wives," good-humoredly remarked Prof. Gross to the large graduating class of 1859, as we fell into line to march to the old Musical Fund Hall. He then understood the language of prophecy better than we, as his tall figure loomed above the baluster from the stair-step in the low vestibule of the noble old Jeff. of that day. Before graduation, the absorbing concern of the conscientious student is to honorably obtain the diploma of a medical college of high standing; this much gained, his next solicitude usually is to find a desirable and favorable location for the acquisition of patients and experience and exchequer. Under the exhilarations of music, flowers, genial faces and graceful oratory, has he not been baptized with the faith that with the first and second professional accomplishments the third is safely assured? And as he industriously trudges along from year to year, going from patient to patient, striving to add experience to experience, how often are his hungering eyes turned back to the golden dream of his commencement? How often does his yearning soul exclaim: "How long, oh, Lord! how long?" Quickened by the beatitudes of the bow of promise, every graduate thinks he sees the traditional pot of gold. It would be gratifying to know what proportion of the ardent hopefuls find it in medical practice. An old-fashioned class-meeting on this interesting feature of information might prove both gratifying and edifying to the profession. That's right, my friends, *none speak at once!*

Beginners in practice do not realize until after they have been distinguishing themselves in the harness of their calling, through heat, cold, mud, and darkness for some years, how many people may be found in the world who consider the doctor a public experimenter, anxious for chances to

demonstrate his skill, and who esteem the compliment of giving him something to do, a trifle of which he should make no account in his debt-book, or they will pass the favor of their clientage on to the next. It takes some time before the ardent graduate gets it ground into his comprehension how many people a courteous, gracious young man may find who meet him with smiles for a whole year, dodge him the next, and don't know him at all the next. And just in this connection, let me add that the hopeful, sanguine young doctor will more than once be amazed by discovering how often his professional popularity will be suspended by the precarious cobweb of whim—how often the estimation of his services will be capriciously measured with the flippancy of a breath!

The aspirations of the medical novice are worthily stimulated by exhortations—

To study always and to strive,
Till at the top round you arrive.

"Don't be satisfied with mediocrity," urges the monitor; "keep your eye on the polar star of progress, and work ever towards its glory—there is plenty of room at the top." And so with shining armor and bounding hearts these new recruits go into the smoke and hail of the ordeal in good faith, and after slashing right and left through successive conflicts, and pushing ahead for ten or twenty years until their sharpened senses prognosticate the crack of doom, and beginning to think they have about reached the indicated elevation of acquirement, they find there is no more room at the top than at the bottom. They perceive that not the indefatigable alone, but rather the lucky, fill the posts of the highest honor—and these posts are all full. They find the top as jealously and zealously contested as the bottom or any intermediate round of the ladder. "Overcrowded," "overcrowded," is the sad, chafing token-call all along the line. Who is ready to make way and give place? Nobody. And therefore the aforesaid recruits, who begin to feel themselves entitled to some of the honors of veterans, begin to cast about to make more places for self-promotion, by originating additional colleges, or hospitals, or dispensaries; they devise multiplicity of chairs, extend the lines of professors, lecturers, and adjuncts, mount some crank as a hobby, inaugurate a specialty that may be adroitly revolved into the mainspring of all modern good or evil; pick straws from the forgotten or neglected lore of illustrious past-masters, and regild them for trophies of modern progress: compile the wisdom of the fathers under new titles,

and throw up the lustre of freshened ideas by reversing the slides of the camera; write testimonials for some thrifty pharmaceutical dogma, and be thereby universally advertised; start mission journals to supply the especial needs of the enlightened and the ignorant in the profession, who have experienced some "long-felt want" that the established medical periodicals do not adequately supply: such is the jostling sphere at the top—as at the bottom, plenty of work and poor pay!

(To be continued.)

DIABETES MELLITUS—PECULIAR DEVELOPMENTS.

BY J. TURNER, M. D.,
Of Brandon, Wisconsin.

Believing it to be the duty of every physician to carefully note and report peculiar and exceptional cases occurring in his practice, and especially so if the disease is one whose pathology and treatment are as unsatisfactory as is the case in diabetes mellitus, I send you the following:

Mrs. F., a married lady, about 26 years of age, of a strumous diathesis and sparely built, was under my treatment for diabetes mellitus for nearly two and a half years. During that time she was subjected to the creasote treatment, the arsenite of bromine treatment, the opium treatment, the ergotine with citric acid and glycerine treatment, and when traveling and not under my supervision, to the lactic acid and skim-milk treatment. At the same time her diet was carefully regulated—starchy and saccharine articles excluded, Bethesda mineral water given, exercise enjoined, etc., but all to little effect. The disease progressed; the patient became more and more emaciated; dropsical effusions made their appearance; boils, muscular pains, derangement of the digestive system, and finally a drowsy, comatose condition supervened. Then it was that the peculiar symptoms to which we wish to call attention developed. When in this progressively increasing comatose condition, she was suddenly attacked with a profuse diarrhoea. Her friends assert that within two or three hours she passed as many as that number of vessels full of a dark colored and very offensive excreta. This occurred during the night. In the morning I found her exceedingly weak, but intellectually clear and rational—more rational and quick in her apprehension than she had been for nearly two weeks, during which she had been getting more lethargic and comatose. Her urine had a specific gravity of only 1011, whereas since the advent of the disease

it had ranged from 1030 to 1042, and a day or two before the diarrhoea, had stood at the last figure. The specific gravity rose during the ensuing two days to 1020, and there remained, except that in the latter part of the day it rose two or three degrees. It was now *free from sugar*, whereas it had ranged in the neighborhood of twenty grains to the ounce. No albumen; reaction slightly acid; appearance normal; thirst disappeared. The quantity of urine voided was now normal. Appetite good, and the food seemed to be well assimilated and digested.

Notwithstanding these favorable and hopeful symptoms, which continued to the last, after two days her mind became deranged so that she talked at random, refused to take medicine, wanted to get up, and slept only when exhausted. Her strength failed, and ten days after the change in the disease she expired.

As to what occasioned the radical change in the disease, I confess my inability to explain. The last remedy tried to control the disease was Dr. Gilliford's solution of arsenite of bromine, but that had been discontinued over a week prior to the attack of diarrhoea, owing to the fact that it seemed to do no good, and the specific gravity registered 1042. Perhaps some of my learned brethren in the profession can account for the unusual symptoms. If so, I have no doubt they will confer a favor upon the profession in general by so doing.

HOSPITAL REPORTS.

A CLINICAL LECTURE DELIVERED AT THE PENNSYLVANIA HOSPITAL.

BY JAMES H. HUTCHINSON, M. D.,

One of the Attending Physicians at the Pennsylvania Hospital, Physician to the Children's Hospital, etc.

Reported by WILLIAM H. MORRISON, M. D.

Cancer of the Stomach—Facial Erysipelas—Embolism of the Cerebral Arteries.

GENTLEMEN: I shall begin this morning's lecture by the exhibition of some specimens removed from an old colored woman who was before the class early in the course. She was quite advanced in life, the age which her employer ascribed to her being eighty years, although she herself thought that she was somewhat older. As you may recollect there was considerable difficulty in the diagnosis. She had been in the house sometime before she came under my care. Her history was that of fair general health up to a short time before admission. She then had a great deal of vomiting and pain in the epigastric region, and difficult digestion. Dr. Arthur Meigs, who saw her at the early period of the disease, was inclined to regard it as a case of cancer of the stom-

ach. When I took charge of her the vomiting had entirely ceased. I think that she vomited but two or three times after she came under my notice, and so far as having any difficulty with the digestion, she was rather inclined to eat freely. There was positively no anorexia. I found her emaciated to a certain extent, but not markedly so. On examining the abdomen, I found an exceedingly prominent tumor in the region of the left lobe of the liver. I was surprised on examining the tumor a few days later to find that it had shifted its position. It was then on the right side. On another day I found it at the umbilicus. At times, it was quite prominent, while at others it entirely eluded the finger. The recti muscles were so stiff that at no time was I able to grasp the tumor. Finding the examination so difficult, I, on one occasion, etherized her. I was then able to examine the tumor to a better advantage, but could not gain much more information. There was a transmitted impulse from the aorta, and when pressure was made with the stethoscope, a murmur was produced. This disappeared when the tumor was not in line with the aorta. The previous history of vomiting and progressive weakness of course pointed to malignant disease of the stomach. As I have said, at the time I saw her all these symptoms had disappeared. There was no pain and there was no vomiting except when she took a purgative. In addition, the tumor was so movable that it seemed impossible that this should be a cancer of the stomach. I told you that it might be a cancer of the omentum, but the patient's strength did not waste rapidly, and I thought that even this explanation was not satisfactory. It occurred to me that it might be a movable kidney. This supposition was strengthened by the fact that there was great clearness on percussion in the left renal region. The tumor, however, had not the feel of a floating kidney. It was not of the same shape, and therefore the nature of the case, at least as far as I was concerned, remained a matter of doubt until the death of the patient.

The autopsy shows that it was really a case of cancer of the stomach, affecting the pyloric orifice and the parts of the stomach in its immediate vicinity. The pyloric orifice is perfectly patulous. The absence of vomiting is explained by the absence of stricture. There is no obstruction. If there ever had been, it has entirely disappeared. This not infrequently takes place, the obstruction yielding by ulceration. The mucous membrane does not seem to be affected. The liver is free from disease, but the pancreas is involved.

Even with the light thrown upon the case by the *post mortem*, I am unable to explain the great mobility of the tumor. I know that occasionally, cancer of the stomach causes great displacement of the organ, the pylorus being in hypochondriac region or even over the pubes, but in these cases it does not shift its position as much as in the present case. This tumor moved in a space not less than six inches in diameter.

The diagnosis of abdominal tumors is by no means easy. I recollect a case which I saw a year ago, and which subsequently passed under the care of one of my colleagues. There was in this patient a distinct tumor felt on the right side in the region of the liver. This I believed to be due

to cancer of the liver. My colleague thought it to be the result of pyloric disease. The autopsy showed that there was both cancer of the liver and cancer of the pylorus. The tumor was, however, due to a cancerous nodule in the liver.

This patient required but little treatment. The vomiting appeared to have been relieved by a mixture containing chloroform, morphia, and compound tincture of cardamom. We merely endeavored to sustain life. At one time it was thought possible that the tumor was due to fecal accumulation. It was at times found in the position of the transverse colon. The patient was purged freely, but the tumor did not disappear, and after a purgative, instead of descending, it moved further to the right. We had, therefore, no difficulty in excluding fecal accumulation.

The result of this case is interesting and instructive in showing the difficulty which often attends the diagnosis of abdominal tumors.

Erysipelas of the Face.

The patient whom I now bring before you is one whom I have not yet seen. Her history, as far as it has been obtained is as follows: She was always healthy until two weeks ago, when the present illness began, with a chill and loss of appetite, followed by fever, which has continued ever since. She continued to perform her duties as a servant until six days ago, when her face became swollen and she took to her bed and remained there until yesterday, when she was brought to the hospital. Her family history is good. She is now much improved. She has evidently been much worse than she is at present.

The condition of the face is still sufficiently marked to make it an interesting study. It is much swollen and red; it has a glazed appearance which may be due to phlyctena, or to the applications which have been made; I think more probably to the latter. The distinctive characters of the disease are unfortunately not well seen, but in certain parts you will observe that the redness is defined and circumscribed. There is no shading off into healthy skin, but on the other hand, the margins are abrupt. There has evidently been the raised border which we have in erysipelas of the face. The eyelids are also much swollen. Where there is loose cellular tissue, the swelling is always very great. In the scalp and forehead, where the skin is bound down to the skull, the swelling is not great, but the pain from the tension is very severe.

This patient has not had a high degree of fever. Her temperature on admission was 103°. This was probably due, at least in part, to the fatigue consequent upon her removal to the hospital. I am inclined to attribute the high temperature which is sometimes noted at the beginning of a patient's stay in the hospital to that cause. We also find that her temperature has suddenly fallen. To-day it is normal. In the natural history of erysipelas, there is frequently round to be a sudden fall of temperature, but the fall in the present instance is probably attributable to the fact that the high temperature was accidental.

The temperature of erysipelas is often high, a marked feature of the disease being a sudden rise of temperature. A patient who has been sick for but a few hours may have a temperature of 105°.

The rise in the temperature often precedes any great degree of inflammation. This I observed a few years ago in a case in the Episcopal Hospital, which was under my care for some other trouble in which the temperature was taken regularly. It was observed that the temperature became high several hours before the inflammation appeared. This high temperature was accompanied by enlargement of the submaxillary glands, which probably had something to do with increasing the fever.

The tongue of this patient is moist and slightly coated with a dirty yellow fur, which may be in part due to the medicine which she is taking. Her urine has not yet been examined. It is important that the urine should be examined in these cases, because where there is a high degree of fever in erysipelas, albumen is nearly always found in the urine. I believe that erysipelas may lay the foundation for disease of the kidney, just as scarlet fever may do, but not so frequently, because the former disease is of shorter duration and the degree of functional disturbance is there slighter.

We have here a patient in whom the disease is declining, and who therefore requires but little treatment. If she had been brought to the hospital earlier, I should have placed her on the use of the tincture of the chloride of iron in large doses. It has been found that no other drug is more efficacious in this disease than iron. I give it in doses of twenty to thirty drops every two or three hours. I have yet to see the case in which it has disagreed with the patient. It is always well borne. If the patient is weak, she should be stimulated. She should receive punch and milk and nutritious food in large quantities.

The local treatment is also of importance. Any application which relieves the pain and tension will be found of service. I know of none better than lint wet with warm water and laid upon the face. There is often difficulty in having this simple remedy properly applied. You will sometimes succeed better if you add to the water a little mucilage; but if the lint is allowed to become dry it will act as an irritant and will do more harm than good. If the remedy is properly applied, it will afford the patient great relief. Some physicians prefer the use of ointments. The oxide of zinc ointment makes a very nice application. A friend of mine is in the habit of applying cotton for the purpose of excluding the air. He believes that nothing gives so much relief as this. When I was a student of medicine, and for some time afterward, it was thought that the inflammation could be limited by the application of remedies around its borders. For this purpose a broad strip was painted with tincture of iodine, one-half being on the sound skin and one-half on the inflamed skin. This was supposed to prevent extension to the hairy scalp. It has however been shown that the disease has a self-limiting tendency, that it but rarely invades the hairy scalp, and that when it does, it does not produce such disastrous symptoms as was formerly supposed. Nitrate of silver and sometimes a blister were also used for this purpose. A blister is especially objectionable because it produces a solution of continuity which often induces a further spread of the disease. If you have recourse to any of these applications, I should advise the tincture of iodine,

which, if it does no good, will do no harm. I do not, however, believe that it has the slightest effect in limiting the inflammation.

From the fact that a high degree of fever may be present before the appearance of the inflammation, it would seem probable that this was a pure febrile disease, and that the eruption was simply an accident, just as the eruption in smallpox and measles; but there are other circumstances that show that it is often of traumatic origin. Some authorities believe that there is always a solution of continuity of the skin. It may be only a small pimple or a slight scratch. If you investigate these cases closely, you will be surprised to find how often such a solution of continuity is present. This is, however, so slight in many cases, that I am disinclined to look upon every case as traumatic.

As to the prognosis. When erysipelas occurs in a young healthy person, and proper treatment is adopted, I think that death is exceptional. It was a long time before I saw death from erysipelas. I then had two within a short time of each other. The first was in a person with dilated and weak heart. The second suffered from disease of the ear, and the inflammation seemed to involve the meninges of the brain. Neither of these can be looked upon as exceptions to the general rule, that erysipelas occurring in a young and healthy person is not a serious disease.

When erysipelas occurs in advanced life, it often appears in the feet, and when it occurs under such circumstances the patients should be freely stimulated from the commencement of the attack. I have, however, treated many cases of erysipelas coming on in advanced Bright's disease, and have never lost a patient. I have simply continued the treatment they were on, and increased the amount of iron.

In this patient the temperature is now normal, and there is no reason to fear that the disease will recur. There is in these cases a tendency to relapse, and it is possible that the exposure to which this patient has been subjected may cause a recurrence of the disease. I have known it to recur two or three times. Last winter we had a patient who continued to have relapses until we kept him for some time in the ward, protected from every influence which might bring on an attack.

Embolism of the Cerebral Arteries.

I shall now bring before you one or two patients whom you have seen before, in order that you may see the change in their condition.

The first one has advanced disease of the heart. When last before you, she was brought on a stretcher and was unable to walk. She can now walk a little. The history was that she was suddenly seized with paralysis of the left side. There is a little doubt in regard to the diagnosis, because there is reason to believe that the patient has had syphilis, and a tendency to vomiting and other slight symptoms of disease of the brain preceded the paralysis. The paralysis was complete. She is still unable to raise the left hand without lifting it with the right, but she is able to move the left leg quite freely. When you last saw her, she was unable to move the leg even when lying in the bed. There has been considerable improvement, in fact more than I had expected. The

tongue is still protruded to the left side, indicating paralysis of the muscles on the left side of the tongue.

The action of the heart is irregular, and there is heard with the systole, a very slight murmur. There is also intensification, or accentuation of the second sound over the pulmonary cartilage. This indicates the existence of mitral disease. There is reason to believe that there is constriction and regurgitation at the mitral valve. Under these circumstances a vegetation on one of the leaflets of the valve might become detached, and be swept along in the circulation until it reaches an artery the calibre of which it entirely occludes, cutting off the blood from that portion of the body which the artery supplies. In this woman, there is reason to believe that an embolus has been washed into the carotid artery of the right side and has entered one of the cerebral arteries, shutting off the circulation of a certain portion of the brain, and as a consequence there has been loss of power on the opposite side of the body. This not infrequently occurs in disease of the heart. I shall bring before you another case in which the same thing has taken place, and in which much improvement has occurred. The improvement in the present patient may be due to the setting up of the collateral circulation by which the brain becomes nourished. Whether or not the brain will ever be able to entirely regain its functions, I am unable to say.

The diagnosis is a little doubtful, not only because there were some symptoms of brain disease before the attack, but also because the left side is the one affected. In embolism, the right side is the one usually involved. This is owing to the fact that the course of the left carotid artery is a little more direct than that of the right.

Fortunately, the doubt that exists in regard to the diagnosis does not affect the efficiency of the treatment. In either case iodide of potassium would be useful. She has been taking this freely until a few days ago, when I discontinued it and gave her simply a tonic.

The other case presents a similar disease of the heart. There is a murmur distinctly heard over the base of the heart and at the apex, the first sound is prolonged and rather labored, and the second sound is reduplicated. In this woman there is no doubt at all in regard to the diagnosis; the seizure was sudden, and the loss of power complete. Power is gradually returning, not only in the leg, which is always the first to recover, but also in the arms. She can execute every movement with the arms. There has been an embolus which has probably obliterated the middle cerebral artery upon the left side, causing the paralysis.

At the present time I am attending a case in consultation in which an embolism has lodged in a different part of the body. There was in this case a sudden seizure of pain in the right leg. On examining the arteries of the leg, I found scarcely any pulsation below the groin. A faint, indistinct pulsation was felt in the popliteal, and a slight one in the posterior tibial artery. As the patient was also suffering from disease of the heart, I had no hesitation in pronouncing the case to be one of embolism of the artery high up, probably in the common iliac. The leg was very

cold, and it was deficient in sensation, the patient not being able to locate the part touched. The next day the limb assumed a whitish color, and a little later the color due to mortification. In the course of a week, it was noted that the other leg was becoming affected. There can be no doubt that the embolus, in consequence of the coagulation of the blood, has caused obstruction of the circulation on the other side of the body. The first effect of an embolus is to arrest the flow of blood through the artery in which it has lodged, the blood coagulates behind it, and this coagulum extends backward until it meets another branch. In this case the coagulum has extended from the embolus until it has reached the artery of the other side, and has gradually passed across it, shutting off the blood from the left leg. It might be thought that this was due to the presence of a second embolus, but if such had been the case, the attack would have been sudden. It, however, came on gradually. This patient is still living. She can only recover with the loss of both feet. Death will probably occur, and is the preferable termination.

With the exception of this case, I have not seen an instance of embolism of the iliac artery since 1862. That was in a child of about eleven years. It resulted in the loss of a foot, and subsequent death.

It is interesting to study the results of embolism. Some authors believe that chorea is always due to embolism of the minute cerebral arteries, but this condition has not always been found after death, and in many cases there is not even disease of the heart. It therefore does not seem probable that such is the case. On the contrary, it seems probable that anything which disturbs the circulation of the brain may cause chorea.

This patient is doing very well. She has however decided disease of the heart. She has been out of the house on several occasions, but always returns in the condition, which the French call "cardiac asthete," i. e., excessive frequency of the heart's action, palpitation, and dyspnea. The disease of the heart unfortunately unfits her for gaining her livelihood, the exertion of going up and down stairs being too much for her.

Until yesterday she was taking digitalis. She now receives nothing but good diet and tonics.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER.

Reported by W. H. SEELYE, A. M., M. D.

Catarrhal Pneumonia.

The patient whom I now show you, gentlemen, is the man whom you saw last week (see page 262) with a catarrhal pneumonia, and he was then in the sixth day of the fever, and his temperature had reached 104°. On the seventh day it was also 104° in the evening, and on the eighth not quite so high. On the ninth day it fell to 100°, but there was an exacerbation up to 102° in the evening. On the tenth day it fell to the normal, but with a not very considerable evening exacerbation. Each day since then there has been a small degree of fever with a slight evening exacerbation. He deffervesced on the ninth and tenth days.

After you saw him, the pulmonary lesion involved the whole of the left lung, and there was a higher degree of fever, and the pulse became feeble and irregular, and the tongue dry, and delirium came on. So it became necessary to administer a considerable amount of stimulants which steadied the pulse, kept down the fever, moistened the tongue, and quieted the delirium. But one practical point has been brought out in the history of the treatment of this case, and that is the fact that he has had no stimulants for the last four days, while during the height of the fever he took eighteen ounces in the course of twenty-four hours. The office of stimulants in these cases is to quiet delirium, steady the pulse, and lower the fever; and I doubt not that this man's temperature was kept within bounds by the large amounts of whisky which he consumed. But after he deffervesced the quantity was diminished to twelve ounces in the twenty-four hours, and was maintained there for several days, because his pulse was still feeble. But now the delirium was rather more troublesome than when he was taking eighteen ounces, and he became more restless at night, and his tongue became drier, and his nervous excitability was increased. So yesterday morning as I was making my rounds in the wards, my attention was called to these symptoms, and I learned that twelve ounces of whisky had been administered within the past twenty-four hours. Yet I found no fever, and the physical examination showed that the pneumonia was resolving. I then suggested to the doctor that it was the whisky which was causing this irritation of the nervous system, and that if it was withdrawn, the symptoms would probably subside. This was done, and since then he has had no delirium, and the restlessness has disappeared. His temperature this morning was only 99° and a fraction, his pulse 84, and his respirations 22 to the minute.

I have mentioned this incident in the treatment of this case, because it is important to remember the fact that in the large majority of cases where whisky is demanded in large quantities during the height of the fever, it will bear reduction immediately upon the subsidence of the temperature. You will find that when a patient is suffering from a high temperature, with a rapid pulse and dry tongue, whisky in large doses will moderate these symptoms, and at the same time it will produce no evil effects, but as soon as the crisis is passed and the fever has become less, you must stop the administration or you will intoxicate the patient. And that is the effect which the whisky had in this case. However, it is often extremely difficult to know just how to manage the alcohol so as to get the best effects, and at the same time to do no harm. In such a case you must be guided by the rule laid down by Stokes, of Dublin, namely, that as long as the alcohol reduces the temperature and the pulse, and moistens the tongue, and allays the delirium, it is doing good, and you can continue to administer it in large doses; but if under its influence the fever is not lessened, while delirium increases, and the tongue becomes more dry, and the patient is restless, the alcohol is doing harm and it should be withheld or diminished in quantity. Another fair guide is this: that as soon as the odor of the alcohol manifests

itself in the breath it is doing harm, and until then it is doing good. For instance, while this man was taking eighteen ounces of whisky a day the odor of it could not be observed in his breath, but if he were taking even a less quantity now you would easily be able to perceive it. This simply means that when a patient is suffering from a high temperature, the alcohol is consumed just like any other fuel which undergoes combustion in a hot flame, and it is converted into carbonic acid and water, and so does not circulate in the blood as alcohol; but when it is not so consumed, and it does circulate as free alcohol, then it is carried to the lungs and all the tissues, and it may, therefore, be perceived in the breath, and by acting as a nervous irritant it produces the symptoms which I have already described.

MEDICAL SOCIETIES.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Infant Foods.

BY PROF. ALBERT R. LEEBES, PH. D.,

Of the Stevens Institute of Technology, Hoboken, N. J.

[Read, by invitation, May 2, 1883.]

In attempting to discuss the problem of Infant Foods, I shall begin by assuming that the natural food of the human infant is the best infant food. Without pausing to give the grounds on which it is based, I shall merely add that the conviction has constantly strengthened with the progress of chemical analyses of the human milk and of the various substitutes which have been proposed, that the above assumption is the safest and least presumptuous one which can be made in the present stage of theoretic and practical knowledge.

But what is human milk? To answer this question satisfactorily, we should know at least three things: 1st. All the components; 2d. Their relative proportion; 3d. Their chemical and physiological properties.

Strangely enough, present knowledge on all these points is very far from satisfactory. With reference to the first point, it is sufficient to state that no complete analysis of woman's milk has yet been made. As to the second, I am not referring to the fact that the milk necessarily varies with the interval since parturition, the nutrition and constitution of the mother, and numerous other variable elements, but to the much more important one, that the average composition of the milk of healthy nursing women is by no means satisfactorily established. You will be surprised, I think, on turning to the literature of this subject to find how widely different are the figures obtained by investigators, and variously adopted, usually without critical consideration, in works treating of the nutrition and diseases of children. Finally, in reference to the third point, our knowledge of the properties of the components themselves is extremely meagre. We know, as yet, very little concerning the true nature of the nitrogenous bodies which are lumped together under the head of albuminoids. And as to the fat of human milk, no separation into the many oily

and fatty bodies, of which it is made up, has as yet been attempted.

It may be said that this is foolish hypercriticism—that if we do not know everything, we know sufficient to conduct the nutrition of infants on a sound basis of adequate knowledge. But many reasons could be given under the heads previously specified for regarding the last assumption premature. Our time will not permit us even to allude to these, but will enable us to speak only of the one practical issue which it is our business to deal with this evening. This is, granting that woman's milk is the best infants' food, in what manner should the nature and proportions of the components be determined of any substitute we may be necessitated to employ. Certainly, only by knowing, in the first place, the average composition of human milk.

As this point is fundamental, and as the wide diversities I have just alluded to existed concerning it, I have thought it well to devote the past four months to its study. In this labor I have had the cordial coöperation of Dr. A. M. Thomas, Chief of Medical Staff of the Emigrants' Asylum and Hospital, and, during the later part of the inquiry, of Dr. K. Parker, of the Infants' Asylum of New York. Both of them have given their personal attention to the collection of the samples, which, in every case, were taken from healthy women, mainly young, and mostly primiparæ. All the points of interest, with regard to the history of the woman, the child, and the sample, have been tabulated and coördinated, and will probably be published in connection with a future monograph devoted to the topic of human milk. This would not be a proper place for these details, further than adding that the samples usually amounted to two ounces, were taken in most instances two hours after time of last nursing, and were generally the entire contents of the gland.

The sources of variation in the multitudinous analyses of woman's milk that have been previously published, are principally three in number: the most important being the differences in the methods of analysis; next, the variation in the constitution of the milk itself; lastly, the circumstances connected with the collection of the sample. Without delaying to discuss these matters, which would require much time and precision of statement, I shall bring before you to-night only so much of the results thus far obtained, as are needed for our present purpose. They are to be regarded as an approximation, to be still further modified by incorporation of the results of other analyses still in progress.

ANALYSES OF FORTY-THREE SAMPLES OF WOMAN'S MILK.

Reaction uniformly alkaline.

	Average.	Minimum.	Maximum.
Specific gravity.....	1.0317	1.030	1.0353
Water.....	86.766	83.34	89.09
Total solids.....	13.234	10.91	16.66
Total solids not fat.....	9.221	6.57	12.09
Fat.....	4.013	2.11	6.89
Milk-sugar.....	6.997	5.40	7.92
Albuminoids.....	2.058	0.85	4.86
Ash.....	0.21	0.13	0.35

Not only was the reaction alkaline when the samples were fresh, but with one exception in which it was neutral, this alkalinity was found to remain twenty-four or more hours after.

The most striking feature in these analyses is the great range of variation in the amounts of certain constituents, more especially in the albuminoids, the maximum, 4.86 per cent., being nearly six times the minimum, which is only 0.85 per cent. The next most variable constituent is the fat, the maximum being more than three times the minimum. Then come the saline matters, nearly three, and last of all the milk-sugar, which differs but little from the mean (6.997 per cent.) in most samples. In other words, the most striking peculiarity in woman's milk is not the constancy, but the great variability in its composition. Furthermore, this variability is by far the greatest in the constituent most essential to nutrition, the albuminoids, and diminishes in degree of variability in proportion as the constituent becomes less and less essential to nutrition, becoming very nearly constant in the case of milk-sugar, the function of which is not nutrition but heating. By which nature appears to intend to teach us that the rate of nutrition in an infant may safely vary within wide limits, but that the animal heat of a highly organized and rapidly developing creature must be maintained *coûte qu'il coûte*. To maintain at a temperature somewhat exceeding that of an adult, a creature whose vital processes on the one hand are of great activity, while on the other hand the supplies of heat due to cerebral impulses and self-originated locomotions are extremely small, requires the rapid consumption of available fuel; and the abundance of carbohydrates in the milk, supplies this most imperative want.

Without stopping to draw out the significance contained in the proportionality of the constituents, both are considered in themselves and as compared with the new-born of other mammalia, let us hasten on to the comparison of human milk with its nearest analogue. This is properly asses' milk, but as this is not and never will be generally available, it will be more profitable for us to consider the cheap and universally accessible cow's milk. For a similar reason, I shall not institute a comparison between the above average and that of the rich milk of blooded cattle, the Alderneys, Jerseys, and so on, nor with selected samples from the best ordinary milch-cows. Rather, as such comparison would be of greater practical utility, I shall adduce the analyses of unadulterated whole commercial, or "market" milk. And as this market milk is itself the average of a great number of samples, it is useless, so far as it is concerned, to give the maxima and minima of its individual constituents.

As determined by methods identical with those employed in the analyses of woman's milk, I shall state, therefore, the following results obtained upon samples of unadulterated cow's milk, such as is sold by farmers in New Jersey to the citizens of New York and Philadelphia.

ANALYSES OF ELEVEN SAMPLES OF WHOLE MARKET MILK.

Water	87.7 per cent.
Total solids	12.3 "
Total solids not fat	8.48 "
Fat	3.75 "
Milk-sugar	4.42 "
Albuminoids	3.42 "
Ash	0.64 "

As in the case of woman's milk, the slight discrepancies noticeable are due to the fact that the figures for "total solids" were those obtained by appropriate separate determinations, and of course do not precisely agree with the figures obtained by mere addition of the solid constituents.

Before proceeding to make a comparison, I wish to quote here the results given by König (*Chemie der mensch. Nahrungs und Genussmittel*), deduced in each case from the analyses of many hundred samples of woman's and cow's milk, and to call attention to the fact that whilst these results include determinations effected by very many and diverse methods, of all descriptions of samples, and present a distinction between casein and albumen (a distinction which cannot be sharply effected by present analytical methods), yet as a whole they are similar to and support the inductions which I shall base upon the analyses above given.

WOMAN'S MILK.

	Mean.	Minimum.	Maximum.
Water.....	87.09	83.69	90.90
Total solids.....	12.91	9.10	16.31
Fat.....	3.90	1.71	7.60
Milk-sugar.....	6.04	4.11	7.80
Casein.....	0.63	0.18	1.90
Albumen.....	1.31	0.39	2.35
Albuminoids.....	1.94	0.57	4.25
Ash.....	0.49	0.14	?

COW'S MILK.

	Mean.	Minimum.	Maximum.
Water.....	87.41	80.32	91.50
Total solids.....	12.59	8.50	19.68
Fat.....	3.66	1.15	7.09
Milk-sugar.....	4.92	3.20	5.67
Casein.....	3.01	1.17	7.40
Albumen.....	0.75	0.21	5.04
Albuminoids.....	3.76	1.38	12.44
Ash.....	0.70	0.50	0.87

The same striking peculiarities are noticeable in the above analyses of woman's milk. The greatest variable is the albuminoid constituent, the maximum being more than seven times the minimum; the most nearly constant is the milk-sugar, varying little from the mean of 6.04 per cent., which is likewise the largest of the solid constituents.

When we compare woman's with cow's milk, it is the great differences and not the similarities which surprise us, and demand study, recognition, and utilization in the solution of the problem of artificial infant's food. In woman's milk we have a persistently alkaline liquid, of a somewhat animal, usually disagreeable, and very rarely sweetish taste, of somewhat greater specific gravity (1.317) than cow's milk (1.029). Although it has less water, and greater total solids, and total solids not fat, than cow's milk, it is by no means so opaque, and with its thin and watery consistence gives us a notion the reverse of true with regard to its real composition. Agreeing with cow's milk in the fact that the milk-sugar in both is the chief solid, it differs in that its milk-sugar largely exceeds the milk-sugar of cow's milk. It likewise exceeds in fat. In albuminoids it falls far below. And whilst by present modes of analysis the separation of the so-called casein from the so-called albumen is not accurately performed, yet the results are approximately correct, and have a very great value in pointing out the most important of all the differences between the two secretions, which is that

the fraction of the total albuminoids in cow's milk which is coagulated by acids is far greater (perhaps four times) than the non-coagulable part.

In woman's milk, on the contrary, the reverse is true, and the non-coagulable part much exceeds (perhaps by more than twice) the coagulable portion. And whilst the absolute amount of ash is less, the relative amount of potash is greater, in woman's than in cow's milk.

For reasons which will appear further on, it would seem that the best solution of the problem of artificial infant feeding is to be found in the substitution of cow for human milk. But, inasmuch as the secretion of herbivora is radically and in all particulars different from that of the omnivora, of cow milk, so profoundly altered as to assimilate, in the ratio and nature of its constituents, human milk.

To discuss the various methods by which it has been proposed to effect this result, would far outrun my present scope, which is only so much of the general discussion as relates to the influence exerted upon cow's milk by the addition of the various articles of infant food now manufactured and offered for sale. This influence, we shall find, is chiefly of a mechanical or physical character, and does not necessarily involve the discussion of those chemical changes at present time under investigation in many quarters, the practical results of which have not yet been satisfactorily determined, and belong, therefore, to the future of this subject.

The method hitherto employed is spoken of as mechanical for reasons based partly on the practice of physicians and partly on laboratory experiments. The mere addition of water to cow's milk is sufficient to reduce the percentage of albuminoids to the same amount as its percentage in human milk. But this addition does little to diminish the size and compact character of the clot of cow's milk. This last is effected, as far as it actually is effected, which is only partially, by the addition of the various attenuants composing manufactured infant's food, whether that attenuant is starch, gum, sugar, dextrine, or other bland nutrient. This explanation of the utility of manufactured infant's foods accounts for the seeming anomalies in present medical practice, which at first sight appear very startling and inconsistent with generally-accepted physiological doctrines. For whilst admitting that the secretions of the salivary and pancreatic glands are insufficient in the early stages of infancy to digest more than very limited amounts of starch, yet physicians frequently use with good results a farinaceous food like Ridge's, which contains 77.96 per cent. of starch, or like Robinson's patent barley, which contains 77.76 per cent. of starch. But when we consider that the utility of this starch is not in the way of infant's food, for which it is not adapted, but as an attenuant of the large amount of diluted milk with which it is mixed, then the seeming contradiction between theory and practice disappears.

To discover whether this interpretation is in accord with experiment, the coagulation was effected in presence of similar attenuants. In the first place, the total albuminoids were determined in a sample of whole cow's milk, and were found to be 3.39 per cent. The so-called casein was

then separated by coagulation with acetic acid, and amounted to 2.42 per cent. On boiling the filtrate, 0.26 per cent. of albumen so called separated out, leaving a deficiency of 0.71 per cent. of albuminoids to be accounted for. A direct determination of the albuminoids in the filtrate from the albumen, gave an additional yield of 0.76 per cent., showing that both coagulation and boiling of the filtrate subsequently, had left nearly one-fourth of the total albuminoids in solution.

Ten grams of the same milk, together with 25 grams cane sugar, and 110 c. c. of water, were treated in like manner, the precipitates being exhaustively washed. I obtained :

As precipitated by acid.....	3.13 per cent.
by boiling	0.40 "
Precipitated by copper sulphate from filtrate.....	1.14 "
	4.67 "
Total albuminoids	3.39 "
	1.28 "

In other words, the precipitates carried down with them 1.28 per cent. of saccharine matter, which could not be removed by washing.

Some barley-water was then made and filtered through ordinary Swedish filter paper, the clear filtrate being used in the following experiment. 10 grams of the same milk as before were mixed with 110 c. c. of the barley water. I obtained :

As precipitated by acid.....	5.21 per cent.
by boiling	0.37 "
by copper sulphate from filtrate.....	1.35 "
	6.93 "

That is to say, the precipitates carried down with them from the clear barley-water 3.54 per cent. of barley extract which could not be removed by washing. In this case, the attenuants of the clot exceeded in weight the coagula themselves.

An experiment with grape-sugar yielded results closely resembling those with cane. With gelatine a very remarkable result was obtained. 10 grams of the same milk were added to 110 c. c. of a solution of 1 part of gelatine in 150 parts of water. Although the gelatine was so attenuated, it entirely prevented the precipitation of casein on the addition of acid, and what is likewise interesting, appeared to arrest decomposition, the white jelly not having altered after a week's standing.

Ten grams of the same milk were added to 110 c. c. of clear starch-water (filtered through Swedish filter paper). I obtained :

As precipitated by acid.....	3.07 per cent.
by boiling	0.36 "
by copper sulphate in the filtrate.....	1.08 "
	4.51 "

Or 1.12 per cent. of starch carried down and not separable by exhaustive washing.

The utility of diluting cow's milk until its percentage of albuminoids does not exceed that of human milk, and adding some bland attenuant, is obvious. But the special virtues of *extracte* of barley or oatmeal, as compared with starch, and the relative values as nutrients of sugar, gum, dextrine, gelatine, barley, oatmeal, etc., etc., and their relative advantages when thus employed, have been very imperfectly determined. It is much to be desired that new physiological and chemical experiments directed especially to these all-important factors in infant nutrition, should be instituted. I shall have occasion to refer to the same points in connection with Liebig's Foods.

(To be continued.)

EDITORIAL DEPARTMENT.

PERISCOPE.

On Some Post-epileptic Phenomena.

In a paper read in the Section of Medicine, at the Annual Meeting of the British Medical Association at Liverpool, August, 1883 (*Brit. Med. Jour.*, August 18, 1883), Julius Althaus, M. D., M. R. C. P. Lond., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, makes the following introductory observations before describing a series of cases: "I wish to draw attention to certain either acute or chronic alterations of the mental faculties which have fallen under my notice, as direct consequences of epileptic attacks. I shall purposely exclude, in discussing this matter, any cases in which epileptiform seizures took place in consequence of gross organic lesions, such as tumor of the brain, chronic inflammation of the membranes and the grey surface of that organ, blood-poisoning of various kinds, and other diseases in which the convulsive paroxysms were only one symptom

amongst many others; and I shall confine myself strictly to the consideration of those cases in which epilepsy occurred as a true neurosis, that still mysterious and unexplained functional disease of the grey matter of the brain, which is possibly owing to some kind of imperfect nutrition, but certainly not to any such structural alterations as would reveal themselves to our present means of research.

"The paper is based on an analysis of the cases of 250 epileptic patients which have been under my care, in private and hospital practice, during a period of six years. Amongst these cases there were 80, or 35.6 per cent., in which no perceptible temporary or permanent alteration in the mental condition, which could be ascribed to the epilepsy, was to be ascertained; while in 161 cases, or 64.4 per cent., such alterations did occur. Of the 89 cases which escaped mental deterioration, 61, or 68.5 per cent., were instances of nocturnal epilepsy; while in 28, or 31.4 per cent., attacks took place in the daytime. All, however, which escaped were cases of typical convulsive attacks;

while, in all cases of loss of consciousness without convulsion, or *petit mal*, and epileptic vertigo or automatism, a more or less permanent mental alteration was induced. Amongst the 161 cases which were followed by mind-affection, there were: 123 cases (or 76.5 per cent.) of typical convulsive attacks;

- 26 " (or 16.1 per cent.) of *petit mal*; and
12 " (or 7.4 per cent.) of epileptic automatism.

"Amongst these patients there were 91 males, or 56.5 per cent., and 70 females, or 43.5 per cent. The ages of the whole series varied from 5 to 62; and when these were distributed over decades, it appeared that the decade from 5 to 15 was at the bottom of the list with 10.5 per cent.; while that between 15 and 25 headed the list with 24 per cent.; the other decades being very nearly even, with a medium of about 16 per cent. The hereditary influence was marked in 66 cases, or 40.9 per cent. The nature of other predisposing or exciting causes, as far as they could be ascertained, did not appear to have exerted any special influence, since they were much of the same kind as in those cases in which the mind was not affected. I will, in passing, remark, that I have excluded from the present consideration those cases which were apparently owing to injury to the head, syphilis, and masturbation, as these are of a complex character.

"The cases, therefore, which form the groundwork of this paper, are only such where epilepsy was the primary event, and where some mental disturbance was observed subsequently to, and as a direct consequence of, the attacks. There are two forms of this disturbance, viz., an acute one, where mental symptoms occur soon after attacks, and disappear again after a certain time; and a chronic form, in which there is a gradual and permanent loss of mental power consequent upon attacks. The characteristic feature of the acute form of post-epileptic mental affection is its periodicity. Identical, or at least highly similar, symptoms are seen to occur year after year, and gradually become intensified, unless they be checked by active treatment. They do not always occur immediately after attacks, but occasionally a day or two afterwards, and last a variable time, but rarely longer than a week. After such an attack is over, the patient has mostly no recollection whatever of what has occurred."

The Comparative Advantages of Scraping and Scarification in the Treatment of Lupus Vulgaris.

In a paper read in the Section of Surgery, at the Annual Meeting of the British Medical Association in Liverpool, August, 1883 (*Brit. Med. Jour.*, August 18, 1883), by Malcolm Morris, F. R. C. S. Ed., Surgeon to the Skin Department of St. Mary's Hospital, Mr. Morris speaks highly in favor of free erosion by means of a blunt spoon. He continues: "The plan I adopted was, with a few minor modifications, identical with that originated by Volkmann, in 1870. With a large spoon, all scabs are thoroughly removed, and with them the great bulk of the superficial deposit; and after drying the surface, the minute nodules which are deeply lodged in pockets of the corium, are dug out with smaller and pointed scoops. The

margins are also vigorously scraped. The spoon should be applied till the whole of the soft friable lupus-tissue has been removed, and only the firm resistance of the sound parts is met with. Though the greater portion of the disease may be removed at one operation, some of the smaller deep-seated nodules which have escaped will reappear in the scar, and require subsequent treatment. After the healing of the wound produced by the operation, a scar with more or less loss of substance is left.

"The great advantage of this treatment is the rapidity with which a cure can be obtained; and if a large surface be affected, in a position in which a scar is of no consequence from its appearance, it is, on the whole, the best that can be recommended. On the face and other exposed parts, the appearance of the cicatrix is a matter of some importance, and it is here that the other mode of operation, scarification, yields better results. I would here mention that in lupus of the mucous membrane I have had the most satisfactory results from scraping.

"The method of multiple punctures, as suggested by Veiel, of Cannstatt, in 1871, is effective but tedious in application, and I have preferred to practice linear scarification with a narrow triangular-pointed knife, as used by Professor Vidal, of St. Louis Hospital, Paris. The little operation is performed by pressing the sharp point of the knife, which should be held like a pen, on the sound skin at the edge of the lupus-growth, and quickly drawing it across the mass to the healthy skin on the opposite side. In its course it should penetrate the entire thickness of the morbid nodule, dividing at its base the fibrous bundles of the corium. Other incisions, parallel to this, should be made as close as possible, and these should be crossed by others at right angles. The bleeding, which is slight, is easily checked by a compress of cotton-wool, and the little cuts heal rapidly. After a week's interval, the operation should be repeated. Occasionally two or three operations are all that is needed, but more often it is necessary to repeat them several times. The scar left is smooth, supple, and usually distinguishable from the healthy skin only by its paler color, being little if at all depressed.

"In the severer ulcerating forms of lupus, especially in lupus exedens, the one alluded to in the opening of the paper, scarification, to be of service, must be used more boldly. We have sometimes to plunge the whole blade of the knife into the mass for a depth of one-half to three-quarters of an inch, to incise it in all directions, leaving the part in a condition literally of mincemeat, but without removing any portion of the tissue. This plan, I can state from my own personal experience, is most effective, and fully merits the favorable recommendation of Vidal.

"In comparing scraping and scarification, the former, though it has the advantage of rapidity, in the character of its scar is much inferior to the latter. Scraping is, after all, a destructive method, similar to, though milder than the older forms of treatment, as it mechanically removes the diseased material, whereas scarification is essentially conservative in its action. The incisions, by cutting off the blood-supply, modify the nutrition of the new growth, and lead to its atrophy with a

minimum loss of substance. In addition, in the severe forms of lupus exedens, in which scraping fails, or even aggravates, scarification acts most rapidly and completely. A further though minor advantage is, that scraping, on account of the pain, requires an anæsthetic, which can be dispensed with in scarification."

A Case of Malignant Disease of the Lung Involving the Superior Vena Cava.

We note the following case from the *Glasgow Medical Journal*, August, 1883:

Mrs. H., æt. 56, was admitted to Ward IV. of the Royal Infirmary on the 2d of July, 1883, complaining of great breathlessness, and of swelling of the upper part of her body. Since December last she had been troubled with a slight cough and spit, but these both ceased previous to her admission here. In other respects she uniformly enjoyed good health, but although married for twenty-one years she never had any family. There is no history either of specific disease or of rheumatism. As to family history: her mother died of phthisis and her father of bronchitis; she has still two brothers and one sister alive and well.

Upon examination, it was found that the face, chest, and arms were swollen and pitted on pressure; the arms, however, felt much firmer than is usual in œdema due to cardiac or renal disease. The superficial veins of the neck and chest were engorged, the skin of the latter having, on account of this, a mottled or patchy look. It is to be noted that these symptoms were equally marked on both sides.

Upon percussing the chest, a dull area was found on the right side, extending vertically from an inch below the clavicle nearly to the level of the nipple, and laterally from the left edge of the sternum for about three inches towards the right side. No pulsation was detected in this situation. Elsewhere over the lungs there was clear resonance, except at both bases behind, which were found to be quite dull. Here the breath sounds and the vocal fremitus were both wanting, and generally, the respiratory murmur seemed fainter on the right side than on the left. As to the heart, its area of dullness was of normal extent, and the sounds, although somewhat weak, were unaccompanied by any murmur.

The liver was neither enlarged nor painful on pressure. There was no expectoration, nor did patient's temperature ever rise higher than 99°. She always sat, propped up in bed, any attempt to lie down being followed by increased breathlessness and lividity of the lips.

As there were no evidences of true lung or heart disease to account for this orthopnea and œdema, a diagnosis was made of a malignant mediastinal tumor, affecting mainly the right lung, but hindering the venous return from both sides of the body equally. This conclusion was arrived at from a consideration of the patient's age, the duration of the disease, and the locality of the physical signs. Some pleural effusion was also suspected.

Little hope was entertained of much improvement in her condition; indeed, she seemed to grow weaker every day, and died on the 10th of July, eight days after admission.

With the relatives' permission, a *post mortem* examination was made thirty-six hours after death. The following notes of it are mainly from the *Journal*: Upon opening the thorax a quantity of serous fluid was found in the pleural cavities, in the right thirty-two and in the left thirty ounces.

The right lung was somewhat collapsed; both lungs had fallen away from the chest wall, there being no adhesions except a small one towards the lower part of the left lung.

Occupying the second and third interspaces of the right side, a whitish tumor was seen, nodular on the surface, and resembling a mulberry calculus in appearance. It was soft, and on section a milky fluid exuded, which, under the microscope, was seen to consist of round cells. The tumor involved the root, and also extended some distance into the substance of the right lung. At one point it had penetrated into the cavity of the pericardium. It had also grown through the wall of the superior vena cava, and in this way hindered the return of venous blood from both sides of the face, and from both arms equally; in addition to this there was thrombosis of the right innominate vein near its junction with the left.

The pericardium contained a small quantity of blood-stained fluid. No malignant growth was found in any of the abdominal viscera. Dr. Coats having seen the preparation, stated that the tumor was probably a sarcoma originating in the bronchial glands at the root of the lung.

Undue Arterial Tension.

In the section of medicine at the late meeting of the Brit. Med. Ass. (*Brit. Med. Jour.*, August 25, 1883), Dr. W. H. Broadbent read a very interesting paper on this subject. He noted the cause of undue arterial tension as two-fold, either excessive action on the part of the heart or some interference with the free circulation of the blood through the arterioids or capillaries. Resistance in the peripheral circulation he considers the main cause. The prominent phenomenon of vigor is general arterial spasm; and in the cold stage of malarial fever, this may be carried to such a degree as to bring the heart to a standstill by the resistance produced. Pressure on the large abdominal veins may cause undue arterial tension by interfering with the circulation.

In a word, undue arterial tension is produced by any cause that will retard the circulation of blood in any part, causing distension of the vessels of such part.

In conclusion, Dr. Broadbent said, that "a careful study of pulse-tension extending over many years—almost, indeed, over my whole independent professional life—has brought me back to some of the old-fashioned modes of treatment, which formed the subject of Dr. Hare's address to the Metropolitan Counties Branch a few weeks since. I was taught that bleeding and mercury were unnecessary and injurious; before I had concluded my term of office as house-physician, I had learnt that venesection might save life, and I have recently endeavored to formulate, from my experience, the conditions for its employment; while mercury has become one of the remedies from which I expect and obtain therapeutic re-

sults of the highest value. In undue arterial tension, the immediate indication is elimination, and especially by aperients. It is not, however, a matter of indifference what aperient we employ; with an equal amount of purgation, the effect on the pulse may be totally different; and observation has taught me that mercury, given in combination with colocynth or rhubarb, etc., is the purgative which is most to be relied upon in the reduction of excessive tension. Even in Bright's disease, in which mercury in any form is considered to be a poison, and in which, no doubt, a course of mercury is most injurious, we cut ourselves off from the means of relieving some of the most trying and dangerous consequences of the renal affection, if we are afraid of giving an occasional dose of calomel. It must not be forgotten, however, that mercury is a powerful remedy, not to be used indiscriminately or by rule of thumb, but to be employed with an intelligent appreciation of the end to be attained; and, when this end is reduction of arterial tension, it must be by removal of peripheral resistance, and not by reduction of the power of the heart, which would be a distinct injury to the patient."

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—"The Next Step for the Medical Profession of the United States." An address delivered before the graduating class of the College of Medicine, Medical Department of Syracuse University, June 14, 1883, by D. B. St. John Roosa, M. D., LL. D. This address sets forth in vivid terms the crying necessity that exists in this country for higher medical education, hints at the means of accomplishing it, and suggests legislation as a way of making this desideratum a reality.

—"A Report on Laceration of the Cervix Uteri," by T. B. Harvey, M. D., Professor of Surgical and Clinical Diseases of Women in the Medical College of Indiana, read before the Indiana State Medical Society, concludes with the following forcible and excellent advice: "If there is no laceration, do not operate; if there is laceration, operate! It is a little like the use of forceps; I, as Prof. Reamy says, never use forceps until I get to the house."

—In a reprint from the *Archives of Medicine*, October, 1882, Dr. E. C. Seguin describes a condition of elevated ulcers upon the legs, occurring in epileptic patients using the bromide treatment, and which he considers as most likely caused by the drug.

—As a reprint from the *St. Louis Medical and Surgical Journal*, February, 1883, we have received

an article entitled "A Rectal Obturator," by Dr. David Prince, of Jacksonville, Ills. The instrument seems like a very useful and practical one.

—We have received as an extract from the *Transactions of the College of Physicians of Philadelphia* (third series, vol. vi.), Dr. George Hamilton's valuable paper on "Sewer-Gas and Its Alleged Causation of Typhoid Fever," which has already appeared in full in our columns.

—In a reprint from the *St. Louis Medical and Surgical Journal* for August, 1883, Dr. F. X. Hendrix, of St. Louis, describes a new tracheotomy tube, which possesses the advantage that it can be gradually withdrawn, allowing the operation wound to close up behind it.

—We have already noted the appearance of an article by Dr. G. de Gorreguer Griffith on "The Unity of Poison in Scarlet, Typhoid, and Puerperal Fevers, Diphtheria, Erysipelas, Sore Throats, certain forms of Diarrhoea and allied affections, and in many other ailments heretofore usually considered to be separate and entirely distinct diseases." We have now received the article as a reprint from the *Glasgow Med. Jour.*, for July, 1882. After citing many strong arguments to support his position, the author concludes thus: "I have many other affirmative proofs, and expressions of opinion which I will not here quote, and will conclude with this axiom, that 'by unity of poison is meant not that the poison is always the same; but that the one poison—the one *origo mali*—whatever it may be, will originate several so-called different affections.'"

—As a reprint from the *Philadelphia Medical Times*, August 11, 1883, we have received "Remarks on Hydrophobia," read before the Philadelphia County Medical Society by Dr. Charles W. Dulles. It is an admirable presentation of our existing knowledge of the disease, with some valuable original suggestions.

—We have received the report for the year 1882-1883, of H. A. Newton, Director, to the Board of Managers of the Observatory in Yale College, presented by them to the President and Fellows: to which is appended the report of the astronomer in charge of the Horological and Thermometric Bureaus. Physicians' thermometers will be verified at the small cost of fifty cents, and a certificate of accuracy furnished.

—The beneficial effects of metallo-therapy (gold) in hysterical convulsions and hemi-anesthesia are well put forth by Dr. E. C. Seguin in a reprint from the *Archives of Medicine*, October, 1882.

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RUSSIAN BATH IN PRIVATE HOUSES.

The most effective of our diaphoretic means is undoubtedly the hot-air-bath, especially as it has none of the often dangerous efforts of jaborandi, our most reliable internal diaphoretic remedy. Generally, however, it is far easier to order such a bath than to procure it. Many and excellent means have been provided by skillful mechanics, and costly apparatus can be bought. But a cheap and ready procedure has still been a desideratum, though most physicians possess mechanical skill sufficient to get up, in necessary cases, something that will answer the purpose.

We need remind our readers only of cases of uræmia, of stubborn dropsy, especially anasarca and of the effects exposure to cold and damp frequently cause in some individuals, to prove that the following invention by Prof. H. Quinke, in Kiel, is well worth our consideration.

The apparatus, the description of which, as published by the inventor himself, we take from the July number of the *Illustr. Monatschr. der Ärtztl. Polytechnik*, has been placed in the Berlin Hygienic Exposition, now still going on, and caused a great deal of comment, and met with general approbation. It is so simple that any person possessed of a few cents and the smallest amount of mechanical skill is able to provide the same anywhere within a few minutes.

At first a common pine-board, about half an inch in thickness, two feet wide, and about eight inches longer than the foot-board of the bed, is provided on top with a round hole large enough to admit the knee of a stove-pipe, one arm of which (a), about two feet long, is bent at an angle of 22° to the back-board, and the other (b) about one and a half feet long, bent at an angle of 45° to the other arm (a). The patient is placed on a mattress and pillow, which are covered by a piece of oil or gum cloth, over which a blanket is spread on which the patient is lying. Two common slats are then laid across the bed beginning each on the pillow near the patient's shoulder and ending either in two holes also cut for their reception in the pine-board first mentioned or resting on brackets projecting from the latter, the pine-board

itself, with the stove-pipe, being placed between the mattress and the foot-board, so that the arm (a) reaches into the bed, the arm (b) back over the foot-board to a wooden chair, on which an oil or spirit lamp, or a gas light is so arranged that the flame, when lit, will enter the orifice of the stove-pipe arm (b). A blanket is then laid over the patient in this manner: One end is tightened around his neck, the sides hang down over the slats and are pushed between the mattress and the side-boards; the end is placed over the pine-board and held tight between this and the foot-board. It is matter of pretention to nail a piece of tin-sheet or zinc to the pine board so that it also covers the pipe a little, so that the blanket cannot come in direct contact with the hot pipe. When now the light is lit there soon will be hot air sufficiently developed under the blanket to start an active diaphoresis.

The temperature usually ascends within eight minutes to 110-120°. A very small quantity of oil, alcohol, or gas, is sufficient to keep the temperature at that height for an hour. It is not possible to get up an apparatus more effectual or cheaper than the one mentioned, and whose manufacture takes less time than it took to write its description down, for the purposes indicated. Certainly it will often do to let a patient sit on a cane-seat chair, cover him with a blanket, and heat the air by placing a light under the chair, or by any similar contrivance; but often patients are not able to sit, or at least not for a considerable time, and in the most favorable case it is more convenient and more effective for the patient to be in the recumbent than in the sitting position. There is also in this apparatus no danger of burning the patient or the blanket, and the air is heated to the desired degree in a remarkably short time on account of the size of the pipe. If the whole is a little carefully arranged and the maker of it possesses only the average skill of the least expert amateur, the apparatus might be plainer still, and all zinc-covering can be omitted. Besides the bed and the bedding, one pine-board with the necessary holes, two slats, the stove-pipe and the lamp are all that is required; and

where such baths have frequently to be taken this simple apparatus will be found a cheap, convenient, and just as efficient substitute for the more costly and elaborate fixtures gotten up for the same purpose.

TREATMENT OF ANEURISMS BY INJECTION OF FIBRIN FERMENT.

The case of femoral aneurism treated by injection of fibrin ferment reported to the late meeting of the British Medical Association, by Dr. F. A. Southam, presents some features worthy of remark. Theoretically, this plan offers an excellent method of treatment, for by it we may hope to coagulate the blood, form a firm clot in and thus obliterate the tumor, without the necessity of resorting to the more dangerous operation of ligature.

But, practically, we can say but little of it, since its use, as yet, has been very limited. In the case under consideration, it was partially successful, in so far as the pulsation in the vessels below the aneurism was checked, though no change in the tumor itself was appreciable; upon the re-establishment of the circulation, the pulsation in the distal vessels returned, which phenomena the author thus explains:

"That the effect of the injection was to cause partial coagulation of the blood in the tumor, but, on the re-establishment of the circulation, the clot, which was not sufficiently firm, was carried on by the blood-stream, and became temporarily arrested in the distal portion of the vessel, where it was afterwards broken up and washed away by the blood."

The operation is thus described:

"A solution was prepared by Dr. Gamgee, and, with his assistance, one drachm was injected in the following manner. The patient having been anæsthetized, the flow of blood through the tumor was completely arrested, digital pressure being made on the artery above the aneurism, and an Esmarch's elastic tourniquet being tied tightly round the middle of the thigh below. The solution of fibrin-ferment was then injected into the aneurism, and the circulation through it was

arrested for thirty minutes. [Had the pressure been continued longer, so as to give the ferment more time to act, the result might have been more satisfactory.—EDS. REPORTER.] At the end of this period all pressure was gradually taken off the vessel above and below, and the blood was allowed to slowly re-enter the limb."

In this case, the sac ruptured, the external iliac artery was ligated, and the man recovered. Unfortunately, the author does not state *how* Dr. Gamgee prepared [the solution, but should any of our readers desire to try this method, a letter addressed to Dr. G., care of the Secretary of the British Medical Association, would, no doubt, procure the desired information.

COPPER VERSUS CHOLERA.

At a recent séance of the Académie de Médecine, M. Burg again affirmed his belief that the impregnation of the tissues by copper conferred almost complete immunity from the attack of cholera.

He considers also that the administration of this medicament, *intus* and *extra*, renders very great service in the treatment of the disease.

To fulfil these indications, he recommends the internal administration of the binoxide of copper in doses of from $\frac{1}{2}$ to one grain per diem. As regards the external application of the metal, it might be brought about by the combustion of bichloride of copper in alcohol lamps.

As regards the prophylactic value of copper, it has been proven by experience in different epidemics of cholera, that workmen employed in copper works, and even people living in houses exposed to the action of the fumes from such places, enjoy almost complete immunity from attacks of the disease.

It is very probable that the researches of M. Burg will be corroborated by the recently undertaken experiments instituted by MM. Chamberland, Paul Bert, and M. Miquel.

They have already demonstrated that the salts of copper have a very powerful anti-parasitic action, and in very minute proportion arrest the development of certain microbes in their culture liquids.

ORIGIN OF THE PRESENT EPIDEMIC OF CHOLERA IN EGYPT.

The ravages of cholera in Egypt, though dying out in Cairo, are spreading in the provinces of upper Egypt, and the few deaths at Beyrouth inspire great anxiety lest the epidemic spread to Syria.

Since the epidemic made its appearance in Egypt, general public opinion, and the press in the European countries threatened, has thrown the responsibility for its rapid progress and origin on the English Government.

In a memoir addressed to the Académie des Sciences, M. Fauvel furnished proofs that the Asiatic cholera was brought to Damietta by Bombay merchants, and that the epidemic thus originated in the mercantile egoism of the English authorities in Egypt, who allowed free entry into the country of articles coming from localities where cholera existed in India.

M. Fauvel passes in review the different points on the Mediterranean whence the disease spread over Europe in previous epidemics, and after discussing the dangers of invasion, he shows that the stringent measures of quarantine taken in all of them, renders very improbable any invasion of Europe by the dread disease.

In Cairo the number of deaths has sensibly diminished, since large fires, fed with sulphur and tar, have been kept burning in the streets.

AMMONIACAL TRANSFORMATION OF THE URINE.

In a recent memoir (crowned by the commission on the Prix Civale), M. Guiard passes in review the different opinions held on this subject.

According to Pasteur and Von Tieghem, this species of fermentation is due to the presence of a mushroom or fungus similar to the *torula cerevisiæ*, which may act on the urine after its expulsion, or during its stay in the bladder to which the fermenting agent is introduced during catheterization.

According to Prof. Guyon, cystitis is the unique cause of ammonuria. M. Guiard himself regards the union of the two factors, fungus and cystitis, as indispensable for the production of lasting ammonuria; cystitis prepares the soil and the microbe determines the fermentation.

Ammonuria by itself is not of grave issue—it does not act in the causation of urinary abscess, cystitis, or nephritis, nevertheless the ammoniacal condition of the urine aggravates the prognosis in urinary infiltration and favors the production of phosphatic calculi.

NOTES AND COMMENTS.

Ulcer of the Stomach.

Dr. F. P. Atkinson had a very obstinate case, which had resisted all treatment. During four different occasions she was under his care, and he gives the treatment in the *Practitioner* for July 1883:

"On each occasion I ordered complete rest in bed. A teaspoonful of Brand's liquid essence of beef, or a teaspoonful of Valentin's meat juice in a little cold water, in small quantities every four hours; a wineglassful of milk and lime-water (mixed in equal proportions) to be taken frequently, and the body to be rubbed with olive oil morning and evening. The beef essence and milk were very gradually increased, and when the pain had almost subsided, a little sponge-cake, bread, barley-water, arrowroot, etc., were allowed, and at last, by very slow degrees, ordinary food replaced the liquid diet. Stimulants of all kinds were interdicted.

"The medical treatment consisted of:

8 grains of Tartrate of Iron,
15 minims of Tincture of Conium,
15 minims of Tincture of Calumba,
15 minims of glycerine,
in one ounce of water, three times daily.

"No aperients were allowed. After a time the mixture was replaced by 15 minims of Bravais dialysed iron, three times a day. Since the last attack, about a year ago, the patient has very materially gained in flesh and color, has been able to take the ordinary diet, except for two or three days, and can walk four or five miles without fatigue."

Gallium Aparine in Cancer.

Referring to the use of this drug, Dr. Charles Boyce writes to the *Brit. Med. Jour.*, July 7, 1883:

"The following are the directions given for its employment by a gentleman in Hertfordshire, to a poor woman suffering from cancer. The bowels having been previously cleared by aperient medicine, and the patient enjoined to live upon the most simple diet, five ounces of the juice of the plant, obtained by pounding and squeezing, are to be taken twice daily; at the same time, an

ointment of the juice is to be applied to the cancerous ulcer, laying bruised clivers over it, and keeping them constantly applied and renewed. The amendment is very gradual, so that steady perseverance in the use of both internal and external means is necessary. According to one account, in three months, the wound had healed perfectly.

"Cliver, or gallium aparine, has also the reputation of reducing the size and diminishing the pain of cancer; the latter I have noticed in a marked degree in a case in which I recently employed it locally; my patient, indeed, rebuked me for not telling her of it sooner. It certainly seems to have power in arresting the ulcerative action, and in promoting a more healthy one.

Parosteal Sarcoma of the Radius.

Dr. Henry T. Butlin uses this term (*Lancet*, August 11, 1883,) to denote a tumor growing by the side of a bone, probably from the outer surface of the periosteum. Such a tumor is easily distinguished from a subperiosteal tumor; for, while the one leaves the periosteum unbroken and closely adherent to the bone, the other raises it off the bone, erodes and destroys the compact tissue, and often penetrates into the medulla or cancellous tissue. They are by no means common.

On July 20 the tumor was cut into, and removed by cutting and scooping. Three inches of the radius, where it was bare of periosteum and rough; were also removed. The growth, like the recurrent tumor in the first case, infiltrated the muscles. It bore all the general characters of a soft cancer without cysts and without capsule. It consisted largely of fibrous tissue, in the meshes of which were numerous round and oval cells, and he regarded it as a fibrifying sarcoma. The wound healed well, and the patient left the hospital. But, three months later, in October, she returned with considerable recurrence in the parts above the scar, extending so high towards the elbow as to render amputation through the arm necessary.

The Relations between Glycosuria and Diabetes, and the Different Forms of Malarial Fever.

The *London Med. Record*, July 15, 1883, says that Dr. E. Calmette records his observations, made in the malarial district around Tunis. These relate—1. To forty-one cases of remittent or intermittent fever, in five of which there was a transitory presence of sugar in the urine; 2. To fifty-five cases with jaundice and subconjunctival extravasation of blood. In several of these, a transitory albuminuria was seen, but no sugar in the urine. The patients of both categories, sev-

eral months afterwards, passed urine without either sugar or albumen, but with a considerable quantity of phosphates and oxalate of lime. Among the natives diabetes is very frequently met with in those who had suffered from malarial fevers. The same is not observed among the population in towns, a circumstance which M. Calmette attributes to a relation between malaria and oxaluria; the separation of sugar or oxalic acid depending upon a disturbance of the glycogenic function of the liver.

First Coitus Attended by Extensive Laceration of the Walls of the Vagina, and Followed by Profuse Hæmorrhage.

Dr. Mundé reports this instructive case in the *New York Med. Jour.*, August 25, 1883: He was called to see a girl, twenty-two years of age, whom he found pallid and anæmic from the loss of blood. She had been married the night before, and but a single connection had taken place. It was not attended by severe pain nor by immediate hæmorrhage, but some hours afterward she observed bleeding from the vagina, and sent for a physician, who gave ergot, but without benefit. He made no examination. Then another physician put ice into the vagina, but also without stopping the hæmorrhage. Dr. Mundé examined the hymen for the source of the bleeding, but found that it came from a point higher up. Introducing a Sims's speculum, the vagina was seen to be ruptured on the right side for a distance of about two inches and a half, extending from one inch above the intestines up into the right fornix. The uterus was retroverted. He assumed that there was a disproportion between the male and the female organ. The bleeding was checked by firm tamponade with cotton. Two years ago he had attended a case of profuse hæmorrhage from rupture of the hymen up into the vagina along the urethra during first coitus, in which tamponade also was required to check the bleeding.

Treatment of Typhoid Fever.

Dr. J. P. Klingensmith has treated typhoid fever with considerable success in the following way, which he records in the *Medical Record*, August 25, 1883: He uses iodine in conjunction with carbolic acid, which he believes prevents the multiplication of germs in the intestines, checks fermentation, and maintains an antiseptic action in the blood. The following is his formula:

R.	Tr. iodinii,	3 ij.
	Acidi carbolici,	3 j.
M.		

Of this mixture he directs three drops to be given in a wineglassful of iced or cold water, three times daily, after meals, and which is continued until convalescence is well established. Quinine is given, q. s. to control temperature. If there is excessive diarrhœa,

R.	Argenti nitratis,	gr. ½.
	Pulv. opii,	gr. j.
M.		

To be given every four hours until brought under proper control. On the other hand, should obstinate constipation intervene, he gives a dose of calomel, unless there are reasons to suspect serious intestinal lesions, in which event the bowels may be emptied by enemata.

In connection with these drugs, he enjoins rest, liquid diet and careful nursing.

Calabar Bean in Diarrhœa.

Dr. Maschka, of Carlsbad (*Berliner Klin. Wochsch.*, April 9), has found this extract of great service in intestinal catarrh, diarrhœa, atony of the alimentary canal, etc., and explains his views of its mode of action. The physiological action of the Calabar bean, Dr. Maschka states, is upon the muscular coat of the intestines, producing contraction thereof. In acute catarrh of the intestines, it controls the hyperæmia of the mucous membrane, and arrests the excessive secretion. Under its continued use the calibre of the intestine becomes narrow, while its contents are held back or only partially expelled. In cases of habitual atony of the muscular coat, it produces a normal evacuation of the contents of the bowels. Dr. Maschka gives it the preference over preparations of opium, as its continued use does not produce the injurious effects of the latter. Although the author has not much experience of the use of this drug with children, he argues *à priori* that it has a great advantage over opium in their case, as being free from the dangers that attend the administration of opium to children.

Diseases of the Eye and Ear in connection with General Diseases.

Dr. W. Cheatham, recognizing the fact that affections of the eye and ear may often be but local manifestations of a constitutional derangement, and *vice versa*, gives this warning in the *American Practitioner* for August, 1883:

"I believe it to be of the utmost importance to make a thorough examination of the eyes and ears in almost all nervous disorders. As stated in this article, I have often seen headaches, vertigo,

cerebro-spinal irritation, hyperemia of meninges, and many other affections having for their sole cause some defect or disease of eyes or ears. Again: Where an eye or ear complication is not the cause, it is often the first and most important symptom of the primary disease; and an early and proper diagnosis of this complication will save many lives and much suffering to humanity."

Another Death from Chloroform.

The *Med. Press*, August 8, 1883, reports another case. The man, aged 46, was chloroformed for the excision of a tumor of the lip. Soon after the inhalation was commenced, the patient became livid, and the efforts to restore respiration, which quickly ceased, were unavailing. Examination of the body post mortem showed that all the organs were in a healthy condition, and a verdict was returned to the effect that "deceased died from sudden paralysis of the nerves caused by chloroform, which had been properly administered."

These cases teach us to use great caution in the administration of chloroform, and we would lay it down as a cardinal rule that the inhalation should be very gradual—that is, plenty of air should be allowed to be inspired with the chloroform until the system has commenced to tolerate the toxic effects of the anæsthetic. The common practice of pouring chloroform on a towel and clapping it over the patient's nose and mouth, is to be greatly deprecated.

Resection of the Lung.

The *Med. Press*, August 8, 1883, contains the following:

Professor Ruggi, of Bologna (Italy), last week successfully performed the above operation. His patient was a woman, æt. 27, attacked with tuberculosis, with almost complete disintegration of the upper half of the right lung. M. Ruggi proposed ablation of the organ, and, the woman consenting, the operation was performed by the surgeon, assisted by a young doctor of rising talent. The whole of the upper lobe was removed, and a part of the middle one. The patient bore the operation well, and is now in a satisfactory condition. Although the above operation has been only reported by one of the daily papers, it is to be hoped that it will not turn out to be another Koch and bull story. As to the *modus operandi*, details are wanting.

Peroxide of Hydrogen in Ophthalmic Practice.

Landolt first introduced it, and now Dr. Le Roy

Pope Walker (*Med. Record*, August 25, 1883), after considerable experience with it, considers that it is very beneficial in ulcerative and purulent processes in the eye.

"Peroxide of hydrogen (H_2O_2) is ordinarily prepared by the action of dilute acids on the peroxides of the alkaline earths. The hydrated peroxide of barium is decomposed by dilute sulphuric acid, so as to form sulphate of barium and peroxide of hydrogen. The solution obtained in this way contains three per cent. of its weight of pure peroxide of hydrogen, and is sufficiently strong for medical purposes. The dilute solution is a clear, colorless, inodorous liquid, with a taste something like that of cress."

It is dropped into the eye, a dozen to fifteen drops at a time.

Galvanism in Basedow's Disease.

Dr. Chvostek recommends (*Centralbl. für Klin. Med.*, June 23, 1883) the following method:

1. The ascending constant current applied to the cervical sympathetic, on each side, for at the most one minute.

2. The same to the spinal cord (the anode at about the fifth dorsal spine, the cathode high up in the cervical region).

3. Through the occiput (one pole at each mastoid process), and in certain cases also through the temples, a constant current, for at the longest one minute, and so weak that the patient can feel but the slightest sensation of burning. Sometimes also local galvanization of the thyroid gland with a weak constant current for about four minutes, the current to be reversed at the end of each minute.

The applications should be made every day if possible.

Spina Bifida.

In the *Med. Record*, June 16, 1883, Dr. Robert T. Hayes reports a successful operation for spina bifida after the method of Mr. Robson, of Leeds, England. Dr. H. adds the following precautions: First, care in removing a portion of the fluid in the tumor before free incision, as a guide to the degree of tolerance present in each case for such a procedure; second, the careful maintenance throughout the operation and for some time after, of such a position of the patient as will most favor the retention by gravitation of the largest amount possible of cerebro-spinal fluid.

His case tends to confirm the successful and useful application of periosteal grafting in this operation.

Avulsion of the Scalp by Machinery.

In the Society of German Physicians in Prague, on March 16 (*Wien. Med. Blätter*, April 5), Professor Gussenbauer showed a case in which the entire scalp had been removed by machinery. The integuments, which were attached by a strip of skin to the neck, were replaced the same day, but adhesion did not take place, and the healing had to be carried out by a skin-grafting. Both in this case, and in a former one in the same factory, where death occurred from hemorrhagic meningitis, the skin was separated along the line of the glabella.

A Successful Porro Operation.

Dr. Ferdinando Franzolini, of Udine, performed this operation (*Gaz. degli Ospitali*) on June 17. The patient, aged thirty-four, was much deformed with rickets, and had aborted three times. After violent labor pains had lasted fifty hours, and the membranes had been ruptured twenty-six, it was decided to remove the gravid uterus, and its appendages, thus obviating the possibility of a future pregnancy. From the third day the child took the breast, and continued to thrive without any further nourishment. On the sixteenth day after the operation the patient left her bed, and Dr. Franzolini had the satisfaction of watching the uninterrupted progress of mother and child.

Flax as a Dressing for Wounds.

In *Vratch*, No. 12, 1883, Dr. Makuschina recommends it as a cheap and convenient surgical dressing. It is prepared as follows: Small bundles of flax are boiled for three hours in ordinary lye-water, and then left to soak in the same for eight or ten hours. After that it is washed five or six times in clean water, dried, and combed out. It loses about twenty-five per cent. in weight, and is a perfectly white, soft material, much more hygroscopic than before being so treated. It is several times cheaper than absorbent cotton, in Russia at least.

Chronic Dysentery Caused by Accumulation of Bones.

Before the New York Pathological Society (*Med. Record*, August 25, 1883. Dr. C. A. Leale related the case of a woman who for thirteen years had suffered from periodical attacks of dysentery, with pain in the back and colon neuralgia. Every recognizable cause was removed, yet the trouble continued. Finally the anus was thoroughly dilated, the rectum drawn down, and a cul-de-

sac two inches deep was found at the lower end of the sigmoid flexure. In it were discovered six bones of birds, after the removal of which the patient recovered.

Locomotor Ataxia and Syphilis.

So much has been said from time to time as to the causative relation between syphilis and locomotor ataxia, that it is well to look at the views entertained on the subject. There are many who hold that syphilis is a very common cause of locomotor ataxia. We now learn that French opinion is divided on the subject; in Germany the weight of opinion is in favor of a relationship, and in England the same view is gaining ground.

Cannabis Indica.

Dr. William Strange (*Brit. Med. Jour.*, July 7, 1883,) has great faith in this drug as a nervous sedative, for the relief of anxiety and restlessness but he thinks that it is seldom given in sufficiently large doses. He recommends a grain of the extract, or from twenty to thirty minims of its tincture. It may be advantageously combined with bromide of potassium.

Rectal Examination for Vesical Calculus.

A very valuable suggestion has been made by Prof. Volkmann in the *Archiv. für Chirurgie*. The patient must be anesthetized, and then while one hand is placed over the pubis, the finger of the other hand is introduced into the rectum. In lean subjects, it is often made easy by this method to grasp the stone.

Veratria in Tremor.

M. Feris, of Brest, claims that in disseminated sclerosis, alcoholism, and adynamic states, it will be beneficial, and that it will cause various kinds of tremors to disappear in from ten days to two weeks. He uses it in doses of four pills daily, each containing $\frac{1}{10}$ of a grain of veratria.

Poisoning from Boracic Acid.

There is a case reported in *Schmidt's Jahrbücher*, following the use of an injection of a four per cent. solution for chronic diarrhoea, and the *Med. Record* reports a death supervening upon its external use in an ulcer. The cases teach us that boracic acid is not as harmless as is usually supposed, and warn us to be cautious in its use.

Fætid Feet.

M. Vieusse says that excessive sweating of the feet, accompanied by pain and fætidity, can be

quickly cured by frictions carefully conducted with the subnitrate of bismuth. In the *Gaz. Hebdomadaire*, July 27, he states that he has never seen any bad results follow the suppression of the sweating.

Through Drainage in Empyema.

Dr. M. Allen Starr reports a case in the *Med. Record*, August 18, 1883, from which he concludes that a double incision and through drainage is eminently successful in the treatment of empyema in children, and that it has decided advantages over every other method.

CORRESPONDENCE.

Gastric Ulcer.

EDS. MED. AND SURG. REPORTER:—

SIR: if you will allow me the space in your journal, I would like to report a case of alarming hæmatemesis caused by gastric ulcer, in the person of myself. Allow me to say, I saw a similar case which was reported in your journal last summer by one Dr. Gray; his description fitted my own, with the exception that his case was fatal and my own was not. At the time I was well nourished, aged about thirty, and riding largely on horseback. On the morning of January 12, 1882, as I came in from the country, I felt sick at the stomach, and vomited a pint of arterial blood; at that instant I became blind, lay down on the sofa, and in a few minutes I vomited about two quarts more, apparently arterial blood. In the treatment there were used the different astringents, some hypodermically; ate ice; chest was packed in ice, but I continued to vomit blood until, as several doctors present expressed it, I had vomited two gallons of blood. I became unconscious. The night of the 13th the doctors concluded to give me a large dose of quinine. They gave me sixty grains. I almost immediately threw it up, with some blood, and never vomited any blood afterwards. I remained in a semi-unconscious condition for three days. Then as I rallied I had a craving for sour food. Continued to improve slowly, so that at the end of three weeks I was with difficulty able to walk out. My pulse continued to be at about 140; no appetite, and a constant sinking and sick feeling in the stomach; and at the end of six months I felt no better, and thinking that traveling might help me, I took a trip East and consulted some good doctors. Got no better, and returned in July, after being East six weeks, feeling worse than ever. Now what I wish to get at is, all this time I was craving something sour. I drank some sour wine, which agreed very well with my stomach; but finally I got to drinking buttermilk, and it agreed so well that I continued its use, discontinuing all other medicine. The sick feeling in my stomach gradually began to leave, and by last January I considered myself well. All this time I have been drinking more or less of the milk, and strange to say, I have never seen the day in that time that I was

tired of it. For five months I have attended my practice, and to-day I am heavier by ten pounds than ever before.

What I wish to say in my case is this; I believe in all cases similar to my own, and kindred weak stomach affections, that we have no agent that will give better results than the free use of buttermilk; and where a patient is not able to retain other food, I would recommend the absolute diet to consist of the milk.

WILLIAM E. MOORE, M. D.

Derby, Iowa.

Effects of Maternal Impressions on the Fœtus.

EDS. MED. AND SURG. REPORTER:—

I notice in the *MEDICAL AND SURGICAL REPORTER* of August 11 a case of monstrosity; and the only cause given was a bad dream about the fourth month. Now, gentlemen, if you permit me through your columns, I will give you my opinions of the idea that some doctors hold in regard to impressions made upon the mother during gestation as the cause of such monstrosities. I would like to ask those gentlemen if a mother receives an impression during gestation that will cause her to give birth to a monstrosity of any kind, would not the impression be so lasting on the mother that each succeeding child would be deformed in the same manner? And if that theory was true, would not monstrosities be the rule instead of the exception as they are now? I will give one case of a great many that I could give. It is of a child that was born in Monmouth, Ill., without feet and only one hand. It is living and well to-day; it is now thirteen months old. Of course there has none been borne by the same mother since.

Now, I ask, is there any doctor that will for one moment say that any impression could or any number of impressions, cause such?

I am so opposed to such an idea that I say if it is right to sue a doctor for want of attention to his patients, it is pre-eminently right to sue a man that calls himself a doctor, and will harass and annoy a woman with any such idea.

I have had women to become frightened at a fish, and worry and fret because they were sure, from what they had been told by doctors, that the child would have scales.

My answer has always been, it is a lie, and your child will neither have scales or feathers. I hold that filling women's minds with such ideas is criminally wrong.

S. R. MILLEN, M. D.

Dunbar, Neb.

Moral Responsibility in the Case of Monstrosities.

EDS. MED. AND SURG. REPORTER:—

Will you or some of your readers inform me as to the duty of the accoucheur in cases of monstrous births, with regard to the (living) child? For instance, during the past three years I have had two cases of acephalous monsters, both born living, one having but a partly developed cerebellum and no cerebrum. On mentioning these cases to an old practitioner, he informed me that he always at once destroyed life in such cases. What is customary in this respect? What are the legal,

ethical, and moral rights and duties of the accoucheur?
Ossian, Iowa.

A SUBSCRIBER.

Squalling Tumors.

EDS. MED. AND SURG. REPORTER:—

Many are nature's freaks, and along with her long list comes one from the woods of Northern Wisconsin. A certain lady became sick, and Dr. A. was called. A natural process taking place within was the woman's idea of the trouble. Dr. A. thinks it (the sickness) due to a tumor, the exact nature of which he is unable to say.

Not being satisfied, Dr. B. is called; and even Dr. C. All agree that the first diagnosis is the correct one.

The lady laughs to tell that she knew what "ailed" her. Nature in a week revolutionizes affairs, for this tumor is born into the world, whereupon the news of a *squalling* tumor was announced not only to the doctors, but to the community.

Verily, nature does simulate all forms in masked clothes, but is this not a new departure in pathology? The lady expressed her surprise in that it was the first time she had heard a tumor "squall" (!)

YOUR ANTIGO SUBSCRIBER.

Antigo, Wisconsin.

NEWS AND MISCELLANY.

Talmage on Doctors.

We take the following from the *Med. Record*:

"There is much cheap and heartless wit about the physician: but get sick, and how quickly you send for him. Some say doctors are more harm than good, and there is a book written entitled, 'Every Man His Own Doctor.' The author ought to write one more book, and entitle it, 'Every Man His Own Undertaker.' Do you think physicians are hard-hearted because they see so much pain? Ah, no! The most eminent surgeon of the last generation in New York came into the clinical department of the New York Medical College when there was a severe operation to be performed upon a little child. The great surgeon said to the students gathered around him: 'Gentlemen, there are surgeons here who can do this just as well as I can. You will excuse me, therefore, if I retire. I cannot endure the sight of suffering as well as I once could.' There are so many trials, so many interruptions, so many exhaustions in a physician's life that I rejoice he gets so many encouragements. Before him open all circles of society. He is welcomed in cot and mansion. Children shout when they see his gig coming, and old men, recognizing his step, look up and say, 'Doctor, is that you?' He stands between our families and the grave, fighting back the disorders that troop up from their encampments by the cold river. No one ever hears such hearty thanks as the doctor. Under God he makes the blind see, the deaf hear, the lame walk. The path of such is strewn with the benedictions of those whom they have befriended. Perhaps there was in our house an

evil hour of foreboding. We thought all hope was gone. The doctor came four times that day. The children put aside their toys. We walked on tip-toe, and whispered, and at every sound said, 'Hush!' How loud the clock ticked! and, with all our care, the banister creaked. The doctor stayed all night, and concentrated all his skill. At last the restlessness of the sufferer subsided into a sweet, calm slumber, and the doctor looked around to us and whispered, 'The crisis is past.' When, propped up with pillows, the sick one sat in the easy chair, and through the lattice the soft south wind tried hard to blow a rose-leaf into the faded cheek, and we were all glad, and each of the children brought a violet or a clover-top from the lawn to the lap of the convalescent, and little Bertha stood on a high chair with the brush smoothing her mother's hair, and it was decided that the restored one might soon ride out for a mile or two, our house was bright again. And as we helped our medical adviser into the gig, we saw not that the step was broken, or his horse sprung in the knees. For the first time in our lives we realized what doctors are worth. In some of our minds among the tenderest of our memories is that of the old family physician."

Good Advice to Travelers in Need of Medical Advice.

Dr. C. W. Chancellor, in a recent letter from Geneva to the *Baltimore Day*, gives the following excellent advice to European travelers: "I feel I would be but ill-acquitting myself of a duty were I to fail to administer an admonition to those of my compatriots who may one day journey into this land; and I hope they will take heed to what I say, for it is wholesome. I would strongly advise Americans who contemplate traveling upon the continent to be very chary of patronizing physicians recommended by *hotel or boarding-house keepers, concierges, porters, etc., etc.*, without first having inquired of their consul or their banker, or some friend, as to the standing of the party recommended; for it not infrequently happens that these parties plot together exclusively as a matter of personal gain, and without any regard whatever for the well-being or interest of those whom they advise. It would be well for persons visiting Europe either to obtain addresses of competent medical men in the various cities they propose visiting before leaving home, or on their arrival to get advice from some reputable person *out of business and above taking a commission*, otherwise they may have a tenth-rate doctor introduced as 'the former physician to the emperor,' the 'chief of the hospitals,' the 'doctor of the American legation,' or some other high-sounding but fictitious title, and they may be left in his hands to be robbed, maltreated, and perhaps murdered. Travelers, in fact, should *make it a rule to take any other physician than the one proposed by a landlord or concierge or courier*, unless the medical man thus recommended be a *compatriot, or is endorsed by some disinterested person*; and they should insist upon having the doctor of their choice—if they have a choice—*really sent for*, taking no excuse for any delay or neglect in regard to the matter. There are reliable and *veritable* American physicians in nearly all the large cities of Europe, whose ad-

dressess can readily be found by consulting the *Directory*, which is in the office of every respectable hotel, or by inquiring at the nearest drug-store."

Another Prize.

The Società Italiana di Chirurgia, founded by the Senator Palasciano, offers a gold medal (value \$100) for the best memoir on "Neutrality of the Wounded in War, and on the Extension of Those Means of Aiding Them Adopted During the Last Twenty-five Years, Embodying Rules and Suggestions for Turning the Same to the Best Account in Future."

Competitors are recommended to give an authentic history of the Geneva Convention (1864), and of its revision in 1868, showing the respective contributions of medical science, of philanthropists, and of governments, to this movement of modern civilization.

2. To enumerate the difficulties foreseen and encountered in the application of the new international compact, as well during the Franco-German as during the Russo-Turkish wars.

3. To estimate the quality and the effects of the increase in aids to the wounded during all the wars waged in Europe, Africa, and America, from 1859 to 1883, with a valuation of international assistance.

4. To propose amendments and measures indispensable to the adequate execution of the aims of the Convention.

5. To indicate the mode of securing the necessary augmentation of relief to the wounded, by utilizing to the best advantage the charity of communities.

The competitor may write in Latin, French or Italian, and his memoir must be distinguished by a motto, and accompanied by a sealed envelope containing his name and address. Competing memoirs must be sent in not later than January 31, 1884, to the Secretary-General of the Società Italiana di Chirurgia, Rome, who may be applied to for further information.

American Gynecological Society.

The eighth annual meeting of the American Gynecological Society will be held in Philadelphia, at the hall of the College of Physicians, on Tuesday, Wednesday, and Thursday, September 18, 19, and 20. Papers are expected to be read as follows: "Superinvolution of the Uterus," by Dr. Joseph Taber Johnson, of Washington; "The Importance of Cleanliness in Surgical Operations," by Dr. R. Stansbury Sutton, of Pittsburgh, Pa.; "Some Points connected with the subject of Dysmenorrhea," by Dr. C. D. Palmer, of Cincinnati; "An Unusual Form of Abdominal Tumor—Three Cases," by Dr. Thaddeus A. Reamy, of Cincinnati; "Is Extirpation of the Cancerous Uterus a Justifiable Operation?" by Dr. A. Reeves Jackson, of Chicago; "A Biographical Sketch of Dr. Nathan Smith, Founder of the Dartmouth Medical College" (being the President's Address) by Dr. Gilman Kimball, of Lowell, Mass.; "The Management of Accidental Puncture and Other Injuries of the Gravid Uterus as a Complication of Laparotomy," by Dr. Charles Carroll Lee, of New York; "A New Method of Operating for Fistula

in Ano," by Dr. Edward W. Jenks, of Chicago; "Ergot: The Use and Abuse of this Dangerous Remedy," by Dr. George J. Engelmann, of St. Louis; "Congenital Fissure of the Female Urethra with Extrophy of the Bladder," and "Menstruation after Extirpation of the Ovaries," by Dr. Henry F. Campbell, of Augusta, Ga.; "Remarks on Chronic Abscess of the Pelvis," by Dr. William H. Byford, of Chicago. A discussion on Death after Labor will be opened by Dr. Campbell.

The Lily of the Valley in Homœopathy.

The *Med. Record* says that some Western homœopaths have got hold of convallaria, and having read all that scientific medicine has to say about it, are quietly appropriating the drug themselves. Dr. Hall recently read a paper on the subject before the Western Academy of Homœopathy (the feebler the association the more high-sounding the name), at Madison, Wis. Without giving credit to any one but Dr. d'Ary, he tells us all about the drug, recommending it in small and large doses. In palpitations and irritable heart he gives one-thousandth to one-tenth of a drop with great success.

Jewish Hospital.

There will soon be vacancies in the offices of Chief Resident and Assistant Resident Physician at the Jewish Hospital, Philadelphia.

Applicants must be unmarried, and speak the German language. Applicants may apply to

Dr. R. J. Levis,
N. W. Cor. 16th and Walnut Sts.

Errata.

In article published September 1, "Medical Practice in Virginia," by Fred. Horner, for "the diagnostic factor, read *factor*;" characteristic of scarlatina maligna, under the head of "Diphtheria," read the peculiar *factor*, and not "*factor* of a diphtheritic patient is as pathognomonic as that of small-pox."

Personals.

—Dr. John C. Dalton, the eminent physiologist, has resigned his chair in the College of Physicians and Surgeons of New York. His successor is Dr. John G. Curtis, who for a number of years has been the assistant professor.

—The Queen has conferred the honor of knighthood upon Mr. Edwin Saunders, F. R. C. S. Eng., who has held the office of Surgeon-Dentist to Her Majesty for thirty-seven years.

—Dr. Edgar A. Dean, of Brockton, has been made a member of the Massachusetts State Board of Health, Lunacy and Charity.

—It is announced that Dr. Calvin Ellis has resigned the Deanship of the Harvard Medical School, and that Dr. H. P. Bowditch has been elected his successor.

—M. Verneuil will represent the Society of Surgery at Paris at the next International Medical Congress. M. Depres has been invited to accept a commission, but he replied that he made it a rule never to attend "scientific fairs."

Items.

—Dr. Banks, the eminent Dublin physician, has refused the honor of knighthood.

—The sum of \$50,000 has been voted for the erection of a physiological laboratory for Dr. Burdon-Sanderson at Oxford.

—In the *Glasgow Medical Journal*, July, 1883, Dr. Lauril reports a case of tetanus unsuccessfully treated with calabar bean.

—In phthisis and bronchitis, Renzi and Rimuno report good results from the inhalation by spray of iodoform dissolved in turpentine.

—In the *Lancet*, June 30, 1883, Dr. James Oliver reports a case of fracture of the larynx by direct violence. Death occurred by suffocation.

—The Third International Otological Congress, says the *Medical Times and Gazette*, will be held at Basle during the first week of September, 1884.

—"You are a nuisance; I'll commit you," said an offended judge to a noisy person in court. "You have no right to commit a nuisance," said the wit.

—Professor Ferd. Petersen, of Kiel, claims that zinc oxide is just as good as iodoform in the treatment of wounds, that it is not so poisonous, and is cheaper.

—In the *British Medical Journal*, June 30, 1883, Dr. Arthur E. Baker reports a case of popliteal aneurism cured by digital compression in less than nine hours.

 QUERIES AND REPLIES.

A Question in Medico-Legal Jurisprudence and in Ethics.

EDS. MED. AND SURG. REP.:—

Mr. D—resided at Fleetwood, Pa. His son, a graduate of the University of Pennsylvania, Medical Department, was practicing medicine and had a drug-store in the same town.

On the morning of the 11th of April, A. D. 1882, the father, while eating his breakfast, complained of having no appetite, feeling nauseous and weak; but took the seven o'clock a. m. train for Reading, eleven miles distant from Fleetwood, to attend to some urgent business.

The son, the doctor, having occasion to go to the city on some important business, took the ten o'clock a. m. train for Reading. Upon alighting from the train at the Reading railroad depot, he was informed of his father being very ill in the city. He at once proceeded to the office where his father was lying on a lounge; found him *very weak, cold extremities, nauseous, rather pale countenance*; and upon assisting him to sit up, he complained of *giddiness*, etc. The son encouraged and assisted him to a hotel, secured a warm room and bed, and with the assistance of the porter, placed the father therein, leaving the porter in charge while he went and summoned Dr. C., who responded and prescribed for the father at about 11.30 a. m. Paid a second visit about three o'clock p. m., and found him improved so much that he sanctioned his being taken home in the four o'clock p. m. train. After his arrival home at Fleetwood, with the assistance of his son, he reached home in a fair condition, only still complaining of extreme weakness, etc. Upon the father's request, his wife made him some soup, of which he ate twice abundantly, and it was retained by his stomach.

At about 8.30 o'clock p. m., of his own accord, he handed the bottle containing the medicine from Dr. C., at Reading, to his wife, who gave him another dose, when shortly thereafter the wife retired in the same bed with him.

The following morning, the wife awoke at about six o'clock; arose, and finding the husband still sleeping, thinking not to arouse him, left the room quietly, and followed her usual household morning duties, until about eight o'clock, when a day laborer called for an order for work, and the wife went to awaken the husband for the same. Finding herself unable to arouse him, she became alarmed, called in the neighbors, and finally the son, who lived across the street. The son refused to prescribe, but called in Drs. F. and S., who prescribed. Dr. F. arriving several hours prior to Dr. S. prescribed, and handed to and requested the son to fill the same. The son being the only druggist in the town did fill the prescription and delivered it to his mother, but requested that none of the medicine should be given to the father until the arrival of Dr. S., who, when he arrived, agreed with Dr. F. in the diagnosis of *cerebral hemorrhage or apoplexy*, but dispensed his own medicine, which was administered to the father, and none of Dr. F.'s medicine was given him. These physicians say they found the patient with a pulse of about 120; respiration about 19 to 20; hot surface of body and head; pupils probably a little dilated; upon raising the limbs, they would immediately drop on the bed. No signs of sensation could be elicited, they being entirely unable by all means to arouse him from this comatose condition, from which he sank until seven o'clock p. m., when he died.

Deglutition persisted, *i. e.*, the medicine prescribed by Dr. S., when placed in his mouth, after remaining some time, would be swallowed, even shortly before death.

After the death and burial, some few bitter enemies, dissatisfaction of will, etc., caused a rumor that probably Mr. D., the father, had not died a natural death.

About one week after the burial, the body was disinterred. A coroner's inquest and a *post mortem* was held as ordered by the District Attorney of Berks county, Pa. The *post mortem* and coroner's inquest revealed the following verdict:

"That Mr. D—came to his death by hemorrhage in the pleuritic cavities, caused by two small ulcers in the lungs, and we can find no other cause from the evidence."

Question 1. Will a person dying from hemorrhage in the pleuritic cavities, as above verdict, usually present all the symptoms as related in the foregoing case, *viz.*: Nausea, extreme weakness, cold perspiration on surface of body, pale countenance, giddiness, after returning home and eating twice abundantly of soup, etc. The following morning—*extreme comatose condition, anesthesia*; pulse, 120; respiration, sonorous or stertorous, 19 or 20; hot surface of body and head; pupils a little dilated. Deglutition returned, and being the only motion capable of being produced or called into action.

If so, please to inform, of any and all similar cases reported in medical jurisprudence or literature, and where recorded.

Question 2. Is there any medicine known to the therapist or toxicologist which, when administered in poisonous doses, sufficient to threaten life or kill—that would produce the symptoms above described?

Question 3. Accordingly to the American Medical Association *Code of Ethics*, or to professional etiquette in the practice of medicine, or to moral principles, was the son's refusal to prescribe, or administer medicine to his father, etc., a proper and just action, or not?

Please refer to any reference, if you can.

Myerstown, Pa.

A SUBSCRIBER.